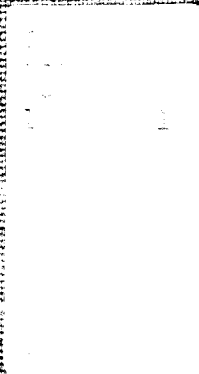


**ALBERTA
AGRICULTURAL
REPORTS**

1905-10



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ANNUAL REPORT
OF THE
DEPARTMENT OF AGRICULTURE
OF THE
PROVINCE OF ALBERTA

1905-6

PRINTED BY ORDER OF THE LEGISLATIVE ASSEMBLY.



EDMONTON:
JAS. E. RICHARDS, GOVERNMENT PRINTER
1907

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ANNUAL REPORT

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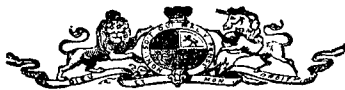
OF THE

PROVINCE OF ALBERTA

FROM

THE FIRST OF SEPTEMBER, 1905, TO THE THIRTY-FIRST
OF DECEMBER, 1906

PRINTED BY ORDER OF THE LEGISLATIVE ASSEMBLY



EDMONTON:

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1907

DEPARTMENT OF AGRICULTURE,
EDMONTON, February 6th, 1907.

To His Honour,

GEORGE HEDLEY VICARS BULYEA,
Lieutenant Governor of the Province of Alberta.

SIR,—

I have the honour to submit herewith the Report of the Department of Agriculture for the sixteen months from the 1st day of September, 1905, to the 31st day of December, 1906.

I have the honour to be, Sir,

Your obedient servant,

W. T. FINLAY,

Minister of Agriculture.

REPORT

OF THE

DEPUTY MINISTER

DEPARTMENT OF AGRICULTURE,
EDMONTON, February 6th, 1907.

HON. W. T. FINLAY, ESQ.,
Minister of Agriculture.

SIR,—I have the honour to submit herewith the first report of the Department of Agriculture for the Province of Alberta, covering the work of the various branches of the Department from the inception of the Province on the first day of September, 1905, to December 31st, 1906.

For convenience the report is divided into two parts, the first part dealing with the four months of 1905, and the second part with the work for the year 1906.

PART I.

The greater part of the work of the Department for the year having been planned under the Territorial regime and most of it having been more or less completed there was very little new work to be undertaken when the Province was created on the 1st of September. The report, therefore, has to deal with the tabulated results of the whole year's work. As no report has been issued of the work undertaken by the Territorial Department of Agriculture during the first eight months of 1905, a summary of the work of that Department in the Province of Alberta so far as it can be separated from that of the Province of Saskatchewan has been embodied.

For convenience the work of the Department is grouped under the following headings:

- I. Crops.
- II. Noxious Weeds.
- III. Agricultural Educational Work.
- IV. Live Stock.
- V. Agricultural Fairs.
- VI. Dairying.
- VII. Public Health.
- VIII. Vital Statistics.
- IX. Hospitals.
- X. Departmental Staff.

I.—CROPS.

The first work of importance engaging the attention of the Department was that of sending out blank books to the threshers in which to make their returns of the amount of grain threshed by them. In all about 350 books were sent out and returns were obtained from something over 325 threshers. The Province was divided into seventeen crop districts, the yields of grain of the various kinds were grouped under these various districts and the whole issued in bulletin form.

These returns were not completed until early in the following year but as they rightly belong to the report for 1905 they are included in it. The first edition of the bulletin comprised 6,000 copies. This was exhausted in one month, such being the demand for accurate information with regard to the yields of grain in Alberta. The second edition of 5,000 copies was issued to meet the demand and later a third edition of a similar number.

While the standard yield of oats per bushel is 34 lbs., this grain in the Province under at all favourable conditions greatly exceeds this amount, and it is safe to say that the ordinary oats of the province as they go on the market weigh from 40 to 44 lbs. per bushel. This must be taken into consideration when reference is made to the yields as given in the tables to be found below, because, as a rule, the oats are measured in sacks when taken from the threshing machine and not by actual weight. This would mean that it is safe to count that the actual yields are at least 20% if not 25% greater than those given in the tables.

The following is the report by districts of the principal crops of the Province:

DISTRICT No. 1.

Area 2,872 square miles.

Cardston District.

Includes country adjacent to the line of the St. Mary River Railway from Magrath to Cardston, and to the Alberta Railway and Irrigation Co.'s line from Tyrell's Lake to Coutts.

	Crop area in acres	Total yield in bushels	Ave. yield per acre
Wheat, Spring.....	2,073	33,713	16 26
Wheat, Winter.....	11,922	199,841	16.76
Oats.....	4,082	121,896	29 86
Barley.....	565	14,510	25.68
Flax.....	.....	.....	.....
Speltz.....	.....	.....	.....

Total crop area, 1905, 18,642 acres.

NOTE:—All yields shown are from threshers' measure and not by weight.

DISTRICT No. 2.

Area 5,220 square miles.

Claresholm, Macleod, Staveley and Pincher Creek District.

Includes country adjacent to the Crow's Nest Branch of the Canadian Pacific Railway from St. Mary westward to the Rocky Mountains, and to the Macleod Branch from Macleod north to Townships 14.

	Crop area in acres	Total yield in bushels	Ave. yield per acre
Wheat, Spring.....	13,998	281,780	20.13
Wheat, Winter.....	9,566	249,939	26.12
Oats.....	13,068	450,063	34.44
Barley.....	1,089	26,060	23.93
Flax.....	9	70	7.77
Speltz.....	28	477	17.03

Total crop area, 1905, 37,758 acres.

DISTRICT No. 3.

Area 4,878 square miles.

Lethbridge, Raymond and Stirling District.

Includes country adjacent to the Crow's Nest Branch of the Canadian Pacific Railway from Bow Island westward to St. Mary. Mostly ranching country.

	Crop area in acres	Total yield in bushels	Ave. yield per acre
Wheat, Spring.....	8,128	76,647	9.43
Wheat, Winter.....	4,190	46,224	11.03
Oats.....	3,688	77,266	20.95
Barley.....	273	4,079	14.94
Flax.....	6	225	37.50
Speltz.....	.....	.....	.....

Total crop area, 1905, 16,285 acres.

DISTRICT No. 4.

Area 4,284 square miles.

De Winton, High River, Nanton and Okotoks District.

Includes country adjacent to the Macleod Branch of the Canadian Pacific Railway from Midnapore south to Townships 15.

	Crop area in acres	Total yield in bushels	Ave. yield per acre
Wheat, Spring.....	1,783	51,031	28.62
Wheat, Winter.....	3,006	99,042	32.94
Oats.....	22,545	1,110,902	49.27
Barley.....	3,266	99,259	30.39
Flax.....	206	2,491	12.09
Speltz.....	25	949	37.96

Total crop area, 1905, 30,831 acres.

NOTE:—All yields shown are from threshers' measure and not by weight.

DEPARTMENT OF AGRICULTURE

DISTRICT No. 5.

Area 9,268 square miles.
Cochrane, Calgary, Crossfield and Gleichen District.

Includes country adjacent to the main line of the Canadian Pacific Railway from Langevin westward to the Rocky Mountains.

	Crop area in acres	Total yield in bushels	Ave. yield per acre
Wheat, Spring	793	26,900	33.92
Wheat, Winter	671	21,599	32.18
Oats	10,991	477,221	43.41
Barley	1,821	58,308	32.01
Flax	25	717	28.64
Speltz			

Total crop area, 1905, 14,301 acres.

DISTRICT No. 6.

Area 13,680 square miles.
Medicine Hat District.

Includes country adjacent to the main line of the Canadian Pacific Railway from Walsh to Langevin, and extending northward to Townships 38. Almost entirely ranching country.

	Crop area in acres	Total yield in bushels	Ave. yield per acre
Wheat, Spring	3,834	60,876	15.87
Wheat, Winter	94	1,902	20.23
Oats	4,970	162,338	32.66
Barley	822	21,974	26.73
Flax	67	1,048	15.64
Speltz	12	343	28.58

Total crop area, 1905, 9,799 acres.

DISTRICT No. 7.

Area 6,822 square miles.
Carstairs, Didsbury and Olds District.

Includes country adjacent to the Edmonton Branch of the Canadian Pacific Railway from Crossfield to Bowden, extending eastward to Range 11 west of the Fourth Meridian, and westward to the Rocky Mountains.

	Crop area in acres	Total yield in bushels	Ave. yield per acre
Wheat, Spring	542	13,172	24.30
Wheat, Winter	1,110	31,348	28.24
Oats	14,944	594,770	39.79
Barley	6,216	181,198	29.15
Flax	68	721	10.00
Speltz			

Total crop area, 1905, 22,880 acres.

NOTE:—All yields shown are from threshers' measure and not by weight.

DISTRICT No. 8.

Area 4,709 square miles.
Bowden and Innisfail District.

Includes country adjacent to the Edmonton Branch of the Canadian Pacific Railway from Bowden to Penhold.

	Crop area in acres	Total yield in bushels	Ave. yield per acre
Wheat, Spring.....	910	20,942	23.01
Wheat, Winter.....	22	573	26.04
Oats.....	9,639	396,688	41.15
Barley.....	3,332	107,321	32.20
Flax.....	.....	.....	.....
Speltz.....	.....	.....	.....

Total crop area, 1905, 13,903 acres.

DISTRICT No. 9.

Area 2,917 square miles.
Red Deer District.

Includes country adjacent to the Edmonton Branch of the Canadian Pacific Railway from Penhold to Blackfalds.

	Crop area in acres	Total yield in bushels	Ave. yield per acre
Wheat, Spring.....	446	11,309	25.35
Wheat, Winter.....	172	4,700	27.32
Oats.....	10,078	387,533	38.45
Barley.....	3,030	85,253	28.13
Flax.....	11	215	19.54
Speltz.....	7	136	19.42

Total crop area, 1905, 13,744 acres.

DISTRICT No. 10.

Area 2,412 square miles.
Lacombe District.

Includes country adjacent to the Edmonton Branch of the Canadian Pacific Railway from Blackfalds to Morningside, and to the Lacombe Branch from Lacombe to Stettler.

	Crop area in acres	Total yield in bushels	Ave. yield per acre
Wheat, Spring.....	948	27,431	28.93
Wheat, Winter.....	118	2,954	25.03
Oats.....	20,247	791,211	39.07
Barley.....	4,083	120,438	29.49
Flax.....	52	1,127	21.67
Speltz.....	3	95	31.66

Total crop area, 1905, 25,451 acres.

NOTE:—All yields shown are from threshers' measure and not by weight.

DEPARTMENT OF AGRICULTURE

DISTRICT No. 11.

Area 2,750 square miles.
Ponoka District.

Includes country adjacent to the Edmonton Branch of the Canadian Pacific Railway from Morningside to Hobbema.

	Crop area in acres	Total yield in bushels	Ave. yield per acre
Wheat, Spring.....	3,238	85,789	26.49
Wheat, Winter.....	46	1,110	24.11
Oats.....	15,171	650,838	42.90
Barley.....	5,518	154,646	28.02
Flax.....	47	530	11.27
Speltz.....	28	899	32.10

Total crop area, 1905, 24,048 acres.

DISTRICT No. 12.

Area 2,520 square miles.
Wetaskiwin District.

Includes country adjacent to the Edmonton Branch of the Canadian Pacific Railway from Hobbema to Millet, and to the Wetaskiwin Branch from Wetaskiwin to Daysland.

	Crop area in acres	Total yield in bushels	Ave. yield per acre
Wheat, Spring.....	5,355	144,755	27.03
Wheat, Winter.....	10	196	19.60
Oats.....	26,839	1,129,417	42.08
Barley.....	6,030	184,502	30.59
Flax.....	56	687	12.26
Speltz.....	36	723	20.08

Total crop area, 1905, 38,326 acres.

DISTRICT No. 13.

Area 8,388 square miles.
Vermilion District.

Includes country adjacent to the Canadian Northern Railway from Chipman to Lloydminster. Greater part unsettled.

	Crop area in acres	Total yield in bushels	Ave. yield per acre
Wheat, Spring.....	3,010	73,963	24.57
Wheat, Winter.....	207	4,206	20.31
Oats.....	13,145	533,810	40.60
Barley.....	3,504	91,711	26.17
Flax.....	25	401	16.04
Speltz.....	2	220	44.00

Total crop area, 1905, 19,896 acres.

NOTE:—All yields shown are from threshers' measure and not by weight.

DISTRICT No. 14.

Area 2,250 square miles.

Fort Saskatchewan, Leduc and Strathcona District.

Includes country adjacent to the Edmonton Branch of the Canadian Pacific Railway from Millet to Edmonton, and to the Canadian Northern Railway from Edmonton to Fort Saskatchewan.

	Crop area in acres	Total yield in bushels	Ave. yield per acre
Wheat, Spring.....	10,435	256,439	24 57
Wheat, Winter.....	127	3,289	25.89
Oats.....	31,327	1,126,229	35.95
Barley.....	10,538	260,675	24.73
Flax.....	.....	.....	.....
Speltz.....	2	82	41.00

Total crop area, 1905, 52,429 acres.

DISTRICT No. 15.

Area 2,804 square miles.

St. Albert and Stoney Plain District.

Includes that territory bounded on the south by the North Saskatchewan River, on the north by Township 60; extending eastward to Range 25 west of the Fourth Meridian, and westward to Range 5 west of the Fifth Meridian.

	Crop area in acres	Total yield in bushels	Ave. yield per acre
Wheat, Spring.....	7,660	154,595	20.18
Wheat, Winter.....	365	8,426	23.08
Oats.....	13,665	469,231	34.33
Barley.....	5,107	125,191	24.51
Flax.....	7	56	8.00
Speltz.....	.....	.....	.....

Total crop area, 1905, 26,804 acres.

DISTRICT No. 16.

Area 5,184 square miles.

Victoria District.

Includes that territory between Townships 55 and 60 inclusive, extending eastward to the Fourth Meridian and westward to Range 24 west of the Fourth Meridian.

	Crop area in acres	Total yield in bushels	Ave. yield per acre
Wheat, Spring.....	12,200	298,163	24 43
Wheat, Winter.....	548	14,670	26.77
Oats.....	28,402	1,034,767	36.43
Barley.....	9,636	238,789	24.78
Flax.....	2	49	24.50
Speltz.....	32	495	15.46

Total crop area, 1905, 50,820 acres.

NOTE:—All yields shown are from threshers' measure and not by weight.

DISTRICT No. 17.

Area 172,578 square miles.

Peace River, Athabasca and Sturgeon District.

A vast territory lying in the northern and north-western portion of the Province.

As yet but little is known of the agricultural possibilities of this district. A few facts are given below with respect to certain settlements which, although too vague to be included in the general statistics and not entirely relative to crops, are yet of great interest in that they indicate some of the possibilities of this great tract of territory. The crops reported are also stated to be below the average this year, in volume of yield. Owing to the great distance from any railroad, the market for all the produce of this northern district is at present local, but as the several projected railway lines into this district are built, the country will undoubtedly become rapidly settled.

Fort Vermilion—(Lat. N. 58° 24', Long. 116° 0'), is about 350 miles north of Edmonton and 100 miles from the northern boundary of the Province. The settlement in this district extends about 25 miles along the Peace river and is 4 or 5 miles in width. It has about 300 head of horses and 500 head of cattle owned by sixty farmers and ranchers. In 1905 six or seven thousand bushels of wheat were grown and about 3,000 bushels of barley. A good vegetable crop is also reported. There are four mills, one of which is a large roller mill, the other three being small grist mills.

Peace River Crossing—(Near T. 83 R. 21 W. 5th Meridian.) This district, which is about 15 miles long and a little more than two miles in width, has about 150 head of horses and the same number of cattle. The reported crop for 1905 is about 3,000 bushels of wheat and 1,500 bushels of oats. There are two small grist mills.

Spirit River.—This district is about 15 miles square and has from 250 to 275 head of cattle, and from 300 to 400 head of horses. The crop in this district totalled about 1,000 bushels of wheat and 1,000 bushels of oats, while the vegetable crop is also stated to be good.

Grand Prairie.—It is reported that in this settlement there are about 200 head of cattle and a large number of horses.

RECAPITULATION.

	Year	Crop area in acres	Total yield in bushels	Average yield per acre	Average yield
Spring Wheat.....	1905	75,353	1,617,505	21.46	20.69
	1904	47,411	786,075	16.58	
	1903	59,951	1,118,180	18.65	
	1902	45,064	850,122	18.86	
	1901	34,890	857,714	24.58	
	1900	30,361	583,806	19.22	
	1899	35,090	833,123	23.74	
	1898	31,348	792,417	25.27	
Winter Wheat.....	1905	32,174	689,019	21.41	21.03
	1904	8,296	152,125	18.33	
	1903	3,440	82,418	23.95	

RECAPITULATION—*Continued.*

	Year	Crop area in acres	Total yield in bushels	Average yield per acre	Aver'ge yield
Oats.....	1905	242,801	9,514,180	39.18	} 35.67
	1904	180,698	5,609,496	31.04	
	1903	162,314	5,187,511	31.95	
	1902	118,997	3,766,976	31.74	
	1901	104,533	4,253,284	40.68	
	1900	77,616	2,625,591	33.82	
	1899	51,929	2,189,441	42.16	
	1898	38,964	1,734,197	44.50	
Barley.....	1905	64,830	1,773,914	27.36	} 26.50
	1904	61,549	1,608,241	26.12	
	1903	42,219	1,077,274	25.51	
	1902	22,201	473,108	21.31	
	1901	13,483	442,381	32.81	
	1900	9,256	234,971	25.37	
	1899	6,655	178,395	26.80	
	1898	8,742	279,826	32.00	
Flax.....	1905	581	8,337	14.34	} 11.88
	1904	367	5,003	13.63	
	1903	830	7,753	9.34	
	1902	373	4,476	12.00	
Speltz.....	1905	178	4,419	24.82	} 23.60
	1904	112	2,426	21.66	

Total crop area, 1905, 415,917 acres.

Total crop area, 1904, 298,433 acres.

NOTE:—All yields shown are from threshers' measure and not by weight.

WEATHER CONDITIONS AND STATISTICS.

From the records of the voluntary meteorological observers the following particulars have been compiled for the weather during 1905:

JANUARY.—Much fine weather was experienced with temperatures much below zero every night. Precipitation was light, no general gales were recorded and there were few high winds. The greatest cold occurred during the second week and latter part of the month, when minimum temperatures of from 15 degrees to 36 degrees below zero were recorded.

Calgary.—The snowfall was light but there is about ten inches of snow on the ground which makes good sleighing.

Medicine Hat.—A very fine month entirely free from blizzards; so far stock on the range are wintering well.

FEBRUARY.—During the first six days the weather was extremely cold and for four days temperatures between 30 degrees and 40 degrees below zero were quite general. It continued cold until the 13th, when there was a marked rise in the temperature and it remained mild until the end of the month. On or about the 21st the temperature had risen above 50 degrees and at some stations it continued so until the 28th. At Medicine Hat the maximum temperature was 64 degrees registered on the 21st. Bright sunshine exceeded the average considerably and the precipitation was quite light. Unseasonably mild weather set in and by the end of the month the snow had melted, the prairie being quite bare, and there were signs of an early spring.

Edmonton.—The month which was cold in the beginning ended with a thaw. Prairies are all bare of snow but there is still a little left in the bush; poplar buds bursting; sap running in soft maple and pansies are in bloom in gardens.

Calgary.—The first eleven days of the month were intensely cold but since then the weather has been exceptionally mild. A robin was seen on the 18th and the gophers have also appeared.

MARCH.—The weather was almost phenomenally mild; the precipitation was quite light; there was much bright sunshine and few high winds. Although the day temperatures throughout the Province were usually between 40 degrees and 50 degrees during the first half of the month, hard frosts occurred at night, and from the 9th to the 15th temperatures well below zero were recorded. On or about the 16th there was a marked rise and 50 degrees was frequently exceeded up to the end of the month. Temperature conditions were in striking contrast with March of 1904, which was a decidedly cold month.

Edmonton.—Thermometer only went below zero twice during the month, registering 8 degrees below zero on the 12th. Wheat was being sown on the 10th and by the 14th snow had entirely disappeared. Seeding of wheat was general by the 24th. Geese were seen on the 2nd, ducks on the 4th and a blue jay on the 10th; ice on the Saskatchewan is rotten and the river is open in places; rivers are all very low; there is no snow in the mountains and trails are dry. Range stock are in excellent condition.

Calgary.—A very mild month throughout with but very little snow; ploughing and seeding well advanced and fall wheat is looking fine.

Medicine Hat.—Exceptionally fine weather during March with a light rainfall; ploughing is now general and some seeding has already been done.

APRIL.—There was a marked absence of precipitation fostering the conditions favourable for prairie and forest fires and these in some

localities occurred, causing considerable damage, especially along the Saskatchewan river, where much standing timber together with cut logs and lumber camps were destroyed.

Calgary.—Weather very changeable throughout the month with much wind, very little moisture and considerable frost.

Edmonton.—The month was dry and windy. Seeding is about over, a much larger acreage than usual having been sown. Wheat is up and looking well but rain is wanted as the ground is very dry; rivers unusually low; vegetation backward.

Medicine Hat.—Crop and grass lands looking well.

MAY.—The month was marked by strong easterly to northerly winds and nights, more particularly during the first two weeks and a part of the last week, were quite cold. Rainfall was light in all parts of the Province.

Edmonton.—May has been a month of high and unusually long continued winds and the nights have been cold. Grain is doing well but grass and garden stuff are backward and more rain needed. Rivers and creeks are very low.

Calgary.—The month has been cold, windy and disagreeable with very little growth, although the crops are looking well.

Medicine Hat.—Fine and mild with a moderate rainfall; crop prospects are very good and growth rapid.

JUNE.—The weather was for the most part cloudy with precipitation generally in excess of the average amount, which was especially the case in Southern Alberta. Light frosts were experienced in many districts on or about the 10th and 24th, the damage therefrom being confined to the more tender vegetables. Growth of all kinds of grain and vegetables was excellent and on the 30th the general crop outlook could scarcely have been better.

Edmonton.—All grain, crops and grass doing splendidly. Three degrees of frost registered on the 24th only affected the more tender vegetables. Good stage of water in the Saskatchewan river but creeks are all very low.

Medicine Hat.—Fine cool weather with good rainfall, well distributed over the month. All kinds of crops looking at their best.

JULY.—The weather for the month mostly fair, with somewhat less sunshine than usual, was generally very favourable to the crops and unless any unforeseen circumstances occur the outlook is promising for a very bountiful harvest. While the rainfall exceeded the average at many stations it was light at most places elsewhere. Temperatures exceeding 90 degrees were recorded in some localities and at a few places light frosts were noticed earlier in the month. The condition of vegetation was normal.

Calgary.—A pleasant month with very little rain. A hail-storm on the night of the 21st did much damage to some gardens. The crops are excellent, especially the fall wheat.

Edmonton.—Weather for all crops very favourable, some local hailstorms but damage slight. Grain well headed out and fall wheat

has done well. Three weeks favourable weather should see harvest well under way. Hay crop heavy. Grain crop under favourable circumstances will be a record one.

Medicine Hat.—Warm weather and occasional rain all through July; crop good and area large.

AUGUST.—The weather conditions of August were in nearly all portions of the Province exceptionally favourable for the maturing of the crops, the results being a most bountiful harvest. It was exceedingly warm whilst the rainfall varied considerably in contiguous districts. From the 6th to 11th and 22nd to 29th there was much fine weather, rain occurring somewhat frequently during the intervening periods. Low temperatures, varying from 30 degrees to 38 degrees, were recorded at many places on or about the 24th, and the nights were quite cool during the second half of the month. A few light local frosts only were experienced, not of sufficient severity to cause any damage; some damage was caused by local hailstorms but the condition of vegetation was excellent.

Edmonton.—An ideal month for ripening crops; all grain is now ripe, yield heavy, sample good; no frost, slight rainfall, all root crops good.

Calgary.—Weather of August dry and windy, favourable to crops; fall wheat harvested and mostly threshed, average yield 25 to 35 bushels to the acre. Spring crop looking fine and being cut.

SEPTEMBER.—The weather remained unusually mild during the month, bright sunshine exceeded the average and a moderate rainfall was recorded except at a few stations where local heavy showers or thunderstorms caused the amount to be excessive. There was no snow but strong winds were extremely prevalent. Conditions were generally highly favourable for the crops and harvesting, a most bountiful harvest being nearly everywhere procured.

Edmonton.—A month of beautiful weather. Crop all harvested in fine condition; yield good; threshers busy all over district; roads good.

Calgary.—A fine, dry but very windy month; harvest is completed in most sections, all kinds of grain yielding well; root and vegetable crops good; no heavy frosts until last few nights.

Medicine Hat.—The weather was fine and dry during September with considerable high winds; harvest all finished. Fall wheat sown but needing rain at present.

OCTOBER.—The first half of the month was exceedingly fine and generally bright with the temperature well up to the average, but at night low temperature prevailed throughout the month. On the 17th a cold wave of unseasonable severity moved into Alberta from the north and on or about the 18th temperatures below zero were recorded at several stations. The proportion of bright sunshine was much below the average and the sky was overcast. With but a few breaks the weather continued cold until the end of the month and light snowfalls were almost general. High winds were frequent and altogether the weather of the month was exceedingly unpleasant.

Edmonton.—Another month of good weather; about three inches of snow fell but quickly disappeared; lakes are frozen over but the river is still open.

Calgary.—A very cold, disagreeable month with high winds and very little moisture; quantities of potatoes and other vegetables frozen in the ground.

Medicine Hat.—Fine open weather during October with a few cold nights and some strong winds.

NOVEMBER.—The weather during the greater part of November was wonderfully fine and mild and this was especially the case between the 8th and 17th, during which period unusually high temperatures were recorded. On the 26th a severe cold wave came in from the north and low temperature continued until the close of the month. The precipitation was light, but in the western part of the Province the average or a little in excess was recorded.

Edmonton.—November has been a month of beautiful weather; the river set fast on the 26th and there are now about four inches of snow on the ground; railroad grading still going on. On the 25th fishing nearly over; grain of all kinds a good sample and good yield; cattle are fat. Rivers, creeks and lakes are exceptionally low.

DECEMBER.—The temperature for the month of December was much above the average, the precipitation, which was probably all snow, being very light, several localities reporting none. At the close of the month there was no snow on the ground in Southern Alberta.

Edmonton.—Reports only five days with the temperature below zero and very little snow.

Medicine Hat.—The weather of December was fine and pleasant.

Calgary.—An exceptionally fine, mild month with almost constant sunshine, no snow or rain; temperature did not drop to zero until the 31st.

METEOROLOGICAL STATISTICS.

The following tables are appended:

- I. Meteorological stations in operation in the Province of Alberta.
- II. Annual precipitation from 1895 to 1905 inclusive.
- III. Monthly precipitation, 1905.
- IV. Temperature, 1905.

The statement showing the rainfall at various stations throughout the Province since 1895 is as complete as possible, but at present averages in Alberta mean but little as the excessive precipitation of 1899 and 1902 completely altered what had been considered the normal for the country. There are at present thirty-three meteorological stations in operation in the Province but it is hoped that this number will be increased to fifty during the present year.

In compiling these tables the principal data made use of are the telegraphic reports of the observations received at the office of the Director of Meteorological Service at Toronto and from reports

received by mail from voluntary observers. The Department is also indebted to Mr. R. F. Stupart, Director of Meteorological Service, for much of this valuable information.

I.—METEOROLOGICAL STATIONS in Operation in the Province of Alberta.
1905.

STATION	LAT. N. 0	LONG. W. 0	ALTITUDE IN FT. ABOVE SEA LEVEL	NAME OF OBSERVER
Albion.....	53 29	111.38	2,000	Thomas B. Waite
Alix.....	.....	.....	.....	Arthur F. Wright
Athabasca Landing.....	54.43	113.17	3,000	A. G. Reeve
Banff.....	51.10	115.35	4,542	N. B. Sanson
Beaver Hills W.....	53.32	112.32	.....	Rev. Clement Hoyler
Bon Accord.....	54 5	113.32	.....	Jno. Schofield
Blackfalds.....	52 24	113.46	2,876	G. L. Gregson
Bruderheim.....	53.49	112.54	.....	G. W. E. Holme
Calgary.....	51.2	114.2	3,389	T. B. Bradin
Calgary Exp. Station...	50.58	114.1	3,400	P. Turner Bone
Cardston.....	49.12	113.18	.....	Martin Woolf
Coutts.....	49.1	111.58	3,463	H. J. Johnson
Didsbury.....	51.40	114.8	3,300	C. L. Peterson
Edmonton.....	53.33	113.30	2,158	H. S. Young
Gleichen.....	50.52	112.54	2,952	Rev. Canon Stocken
Gray Hill.....	52.15	113.30	2,795	Robert Gray
High River.....	50.35	113.53	.....	F. R. Pike
Innisfail.....	52.3	113.56	3,087	Hen. George, M.D.
Jumping Pound.....	51.6	114.35	.....	Cecil E. Byron
Kimball.....	49.5	113.13	.....	Jno. Sloane
Knee Hill.....	51.55	113.47	2,800	Alex. Wyndham
Lethbridge.....	49.42	112.51	.....	C. B. Bowman
Lacombe.....	52.28	113.45	2,783	A. A. Crow
Lloydminster.....	53 18	110.0	.....	Stanley Rackham
Macleod.....	49.44	113.24	.....	Supt. P. C. H. Primrose
Magrath.....	49.25	112.52	3,210	W. J. Hopkins
Medicine Hat.....	50.1	110.37	2,161	Walter Crosskill
Pincher Creek.....	49.11	114.0	3,750	G. W. Gill
Red Deer.....	52.16	113.49	.....	R. E. Fiske
Stirling.....	49.31	112.31	3,045	Theo. Brandley
Three Hills Creek.....	.....	.....	.....	W. E. Cutler
Victoria.....	54.0	112.23	.....	J. A. Mitchell
Wetaskiwin.....	52 58	113.23	2,480	J. H. Walker

II.—ANNUAL PRECIPITATION from 1895 to 1905 inclusive.

STATION	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	Ave
Banff...	21.79	15.86	23.40	20.58	26.34	23.30	19.27	30.59	24.82	14.80	16.00	21.52
Beaver Hills W..	.....	.....	.....	15.15	22.09	26.41	25.39	22.13	16.25	16.96	15.80	20.02
Calgary.....	15.12	16.05	20.58	16.21	26.15	17.57	22.31	34.57	22.77	11.89	14.12	19.75
Calgary Ex. Stn	15.56	13.46	21.75	15.82	27.90	.....	21.54	34.17	21.30	15.22	15.59	20.23
Didsb'y.....	.....	.....	.....	.....	.....	.....	23.07	.....	21.80	14.39	21.72	20.24
Edm'ton.....	14.68	15.24	14.54	10.90	24.89	27.80	27.83	20.66	21.06	19.87	15.56	19.36
Gleich'n.....	.....	.....	.....	.....	.....	.....	.....	.....	15.83	10.06	11.19	12.36
Innisfail.....	.....	.....	.....	.....	.....	23.65	24.94	22.58	19.26	11.75	20.44	20.43
Leth'ge.....	.....	.....	.....	.....	.....	.....	.....	28.13	14.82	11.42	13.78	17.03
Macleod.....	.....	12.73	12.69	13.59	19.74	10.08	12.21	10.48	9.73	5.34	11.63	11.82
Medicine Hat...	14.13	18.18	17.25	15.90	22.28	22.05	20.80	13.68	9.90	9.70	8.99	15.71
Pincher Creek...	20.23	13.29	.....	.....	.....	.....	.....	27.57	17.84	9.43	14.52	17.14
Red Deer (Hillsd'n)	.....	.....	.....	.....	.....	25.56	28.91	.....	.....	13.15	16.26	20.97
Three H' Creek...	.....	.....	.....	.....	.....	.....	.....	.....	18.00	11.22	17.89	15.70
Wetas'n.....	.....	.....	.....	.....	.....	.....	.....	.....	20.87	18.14	13.18	17.39

III.—MONTHLY PRECIPITATION—1905.

STATION	JAN.	FEB	MAR	APR	MAY	JUNE	JULY	AUG.	SEPT	OCT.	NOV.	DEC	TO'L
Albion (Deln't)	0.35	S	0.50	1.45	1.27	3.24	1.64	3.09	2.27	0.92	0.53	0.05	15.31
Alix.....								0.81	0.92	0.65	0.44	0.05	.....
Athabasca													
Landing.....		0.25	0.02	S	0.73	2.27	3.66	1.63	2.50	0.39	0.25	0.05	.....
Banff.....	0.55	0.30	0.93	0.56	3.06	3.91	1.43	0.89	1.72	1.66	0.54	0.45	16.00
Beaver HillsW	0.29	0.08	0.59	0.09	1.19	4.05	5.14	1.65	1.40	0.40	0.43	0.49	15.80
Bon Accord...	0.45	0.09	0.53	0.05	0.75	3.57	3.22	1.68	.....	0.44	0.40	0.28	.....
Blackfalds.....									1.15	0.63	0.58	0.08	.....
Bruderheim....	0.18			0.01	1.13	3.40	4.11	1.16	1.86	1.15	0.17	0.12	.....
Calgary.....	1.04	0.30	0.65	0.80	2.06	5.81	0.91	0.69	0.35	0.31	1.20	S	14.12
Calgary Ex Stn	0.82	0.10	0.62	1.20	1.91	8.78	1.04	0.38	0.30	0.35	0.09	0.00	15.59
Coutts.....		S	0.32	0.30	0.70	1.86	1.68	.....	0.30	1.24	.....	.....	.....
Didsbury.....	0.70	0.70	0.50	0.50	2.38	9.81	2.54	1.95	0.24	0.90	1.50	0.00	21.72
Edmonton.....	0.50	0.05	0.48	0.01	1.61	4.36	3.82	1.51	1.68	0.64	0.83	0.07	15.56
Gleichen.....	0.77	0.10	0.05	0.20	1.26	3.80	3.37	1.06	0.11	0.27	0.20	0.00	11.19
Gray Hill													
(Red Deer)...	0.87	0.13	0.62	0.25	1.68	9.12	2.35	1.71	0.83	0.71	0.56	0.07	18.90
High River....													
(Pekisko)....								0.20	0.41	0.50	4.85	S	.....
Innisfail.....	0.95	0.20	0.12	0.60	1.97	11.02	1.54	1.43	0.93	0.98	0.67	0.03	20.44
Jumping Pou'd									0.25	0.90	1.12	0.08	.....
Kimball.....					3.07	4.04							.....
Knee Hill.....				0.06	1.14	6.42	2.28	1.18	0.01	0.24	0.05		.....
Lethbridge....	1.45	0.05	0.74	0.56	1.33	2.68	1.44	1.99	0.80	1.13	1.36	0.25	13.78
Lacombe.....	0.74	0.15	0.05	0.10	1.54	5.47	3.62	1.51	0.90	0.60	0.30	0.06	15.04
Lloydminster..	0.25	0.02	0.03	1.18	1.43	3.13	2.60	3.90	1.64	1.24	1.30	0.03	16.75
MacLeod.....	1.60	0.15	0.53	0.30	1.56	2.90	0.95	0.66	0.68	1.00	1.30	0.00	11.63
Magrath.....	1.02	0.08	0.59	1.60	.....	.....	3.27	.....	.....	.....	.....	.....	.....
Medicine Hat...	0.70	0.15	0.55	0.30	1.13	3.93	0.85	0.74	0.16	0.13	0.30	0.05	8.99
Pincher Creek.	0.38	0.16	0.72	1.76	1.97	4.49	2.87	0.11	0.34	1.32	0.40	0.00	14.52
Red Deer													
(Hillsdown)..	1.05	0.90	0.42	0.35	1.83	4.83	3.46	1.19	0.82	0.79	0.54	0.08	16.26
Stirling.....	1.65	0.10	0.76	0.40	1.26	2.19	2.93	0.27	0.72	0.60	0.80	0.00	11.63
Three Hills Cr.	0.92	0.23	0.19	0.22	1.39	7.31	2.82	2.77	0.53	0.59	0.92	S	17.89
Victoria.....	0.35	0.07	0.32	0.52	0.34	3.54	1.63	0.92	1.88	2.17	1.20	0.25	13.19
Wetaskiwin....	0.39	0.09	0.10	0.06	1.54	5.66	1.59	1.73	1.08	0.31	0.41	0.22	13.18

S.—Trace of Snow.

IV.—TEMPERATURE—1905.

STATION	JANUARY					FEBRUARY					MARCH					APRIL				
	Mean	Max.	Date	Min.	Date	Mean	Max.	Date	Min.	Date	Mean	Max.	Date	Min.	Date	Mean	Max.	Date	Min.	Date
Albion	0 09	39.5	1	-32.0	31	3.8	46 0	28	-43.5	11	30.8	57.8	22	-11 5	12	39.5	80 0	25	7.2	13
Alix																				
Athabasca Landing	-1 9	30.0	3	-36 0	21	5.8	52 0	26	-45 0	11	29.4	58 0	25	-15 5	11	39.3	79 0	25	0.0	14
Banff	11.8	37 0	3	-27.0	13	15.8	45 8	28	-37.7	11	33.8	57.1	8	-3 5	12	37.9	70 0	24	12.0	3
Bon Accord	5.5	42.5	17	-25.5	14	10.8	53 2	27	-34.5	11	32 0	55.5	20	-10 3	12	40.9	79.5	24	8.0	13
Blackfalds																				
Calgary	10.0	46.0	2	-28.0	14	14.4	57 0	28	-40 0	2	36 0	66 0	2	1 0	11	39.5	78.0	24	2 0	14
Calgary Exp. St'n... ..	11.7	47.4	3	-22.0	14	10.8	55 4	27	-45 0	3	32.5	66 4	3	-3 0	11	36.6	77.0	25	21.9	13
Daysbury	11.8	46 0	17	-18 0	29	17 0	56 0	24	-40 0	10	34.8	64 0	2	-6 0	11	40.7	82.0	25	6.0	14
Edmonton	6 2	42.0	17	-27.0	23	12.7	54 0	27	-35 0	11	35.4	61.0	20	-8 0	12	43.3	84.0	24	10.0	14
Gray Hill	10 2	46.7	3	-16 6	23	16.4	56 5	27	-27 5	2	35.1	63 0	16	-5 8	12	41.3	79.6	24	13.4	13
Gleichen	8.8	47.0	2	-31.0	30	9.1	58.0	28	-53.0	2	35.1	69.0	2	-1 0	11	40.6	79.0	23	11 0	14
High River																				
Knee Hill	2.9	42.0	3	-33.4	30	1.6	48 0	28	-53 0	2	32.6	68 0	2	-4 3	11	37.8	80.0	24	5.0	14
Lethbridge	15.2	53.6	3	-15.4	30	16.3	60 9	28	-43.8	2	40.1	73 6	17	-5 0	11	44.5	82.5	26	13.0	14
Lloydminster	-1.1	35.0	18	-33.7	9	1.2	50.4	28	-38.8	13	29.1	59.4	24	-11.2	12	36.3	80.5	25	4.4	13
Macleod	13.4	51.0	3	-22.0	13	16.0	59.0	27	-41.0	11	37.9	69 0	16	1 0	11	42.3	77.0	24	5.0	13
Medicine Hat	10 2	49.0	2	-20.5	14	13.5	64.0	28	-44.0	2	40.6	68.0	2	6.5	11	45.8	80.0	24	17.7	14
Pincher Creek	17.3	48.0	3	-19.0	13	17.1	55.0	28	-39.0	2	36.9	65.0	4	3 0	12	39.5	74.0	25	1.0	14
Red Deer	8.0	44.2	3	-22.0	13	12.7	54.3	26	-37 0	11	34.6	63 0	2	-8 0	12	41.9	79.0	24	14.0	15
Three Hills Creek ..	1.8	40.0	3	-35.5	30	5.3	60.0	26	-52.0	2	32.5	61.5	16	-6 0	12	39.9	79.0	24	9.0	14
Victoria							81.0	26	-60.0	11		57.0	20	-5 5	12	39.5	80.0	24	16.0	16
Wetaskiwin	5 3	40.0	18	-24.0	14	9.8	52.0	28	-35.0	11	32.9	60.0	17	-4 0	13	40.0	79.0	25	13.0	13

IV — TEMPERATURE—1905—Continued.

STATIONS	MAY					JUNE					JULY					AUGUST				
	Mean	Max.	Date	Min.	Date	Mean	Max.	Date	Min.	Date	Mean	Max.	Date	Min.	Date	Mean	Max.	Date	Min.	Date
Albion.....	49.7	76.8	31	26.0	2	55.2	84.0	2	30.0	23	62.4	81.2	9	40.5	30	59.9	83.5	6	32.8	31
Alix.....	50.6	85.0	31	23.0	19	55.1	86.0	1	33.0	9	60.7	83.5	28	35.0	30	44.1	54.0	7	29.0	27
Athabasca Landing	43.7	77.0	31	23.0	4	49.7	87.5	1	30.2	16	58.4	88.1	23	34.5	12	59.4	86.0	6	33.0	23
Banff.....	50.0	80.5	31	25.8	5	54.5	84.0	1	31.8	17	60.3	78.5	28	41.5	8	56.8	83.6	6	30.0	23
Bon Accord.....	47.4	80.0	31	24.0	4	52.9	85.0	1	32.0	27	61.2	71.0	9	40.0	18	58.7	82.0	6	35.0	29
Blackfalds.....	44.6	72.0	17	23.5	4	50.5	80.4	2	29.5	9	57.6	84.4	10	29.5	18	59.9	86.0	6	33.0	27
Calgary.....	48.2	84.0	30	22.0	4	51.1	86.0	10	28.0	23	61.8	94.0	9	46.0	11	57.6	82.9	7	31.5	27
Calgary Exp. St'n...	52.0	82.0	31	27.0	5	56.4	86.0	1	29.0	24	62.8	80.0	13	45.0	12	58.4	86.0	6	32.0	27
Didsbury.....	50.2	79.2	31	23.4	2	52.9	82.6	1	30.5	23	60.6	79.6	10	44.4	11	58.0	83.2	8	35.4	24
Edmonton.....	47.8	78.0	31	23.0	9	53.2	85.0	1	27.5	23	61.2	88.0	9	41.0	17	60.8	86.0	27	31.0	31
Gray Hill.....	45.3	79.0	31	14.5	4	50.7	84.0	1	22.0	24	58.7	91.0	2	30.0	12	58.4	91.0	2	32.0	12
Gleichen.....	50.7	82.7	31	28.0	5	58.0	91.0	2	33.2	23	66.9	94.8	10	41.0	15	67.5	93.8	9	41.3	22
High River.....	47.3	74.3	19	24.5	7	52.6	83.6	3	28.7	24	59.9	77.9	14	43.0	22	58.9	82.3	7	35.8	23
Knee Hill.....	48.9	81.0	31	24.0	5	55.1	86.0	1	30.0	15	64.9	96.0	21	37.0	15	65.7	95.0	24	39.0	20
Lethbridge.....	52.3	82.0	31	30.7	16	59.2	90.0	1	34.7	23	68.3	95.0	9	46.7	12	69.6	95.0	8	41.7	29
Lloydminster.....	45.8	73.0	31	28.0	3	52.3	84.0	5	33.0	16	61.8	91.0	24	36.0	14	62.0	87.0	13	35.0	29
Macleod.....	46.9	81.0	31	15.0	4	53.6	85.0	1	27.0	23	59.2	84.0	10	40.0	12	58.1	84.0	7	30.0	27
Medicine Hat.....	49.6	79.5	31	23.0	13	53.3	84.5	1	23.5	23	62.3	96.5	9	35.5	12	58.9	93.0	8	29.0	27
Pincher Creek.....	47.8	77.0	31	26.0	13	54.0	84.0	2	33.0	24	60.6	79.0	25	41.0	12	59.1	85.0	5	30.5	27
Red Deer.....	46.9	81.0	31	15.0	4	53.6	85.0	1	27.0	23	62.3	96.5	9	35.5	12	58.9	93.0	8	29.0	27
Three Hills Creek	49.6	79.5	31	23.0	13	53.3	84.5	1	23.5	23	62.3	96.5	9	35.5	12	58.9	93.0	8	29.0	27
Victoria.....	47.8	77.0	31	26.0	13	54.0	84.0	2	33.0	24	60.6	79.0	25	41.0	12	59.1	85.0	5	30.5	27
Wetaskiwin.....	47.8	77.0	31	26.0	13	54.0	84.0	2	33.0	24	60.6	79.0	25	41.0	12	59.1	85.0	5	30.5	27

IV—TEMPERATURE.—1905—Continued.

STATION	SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER		
	Mean	Max.	Date	Date	Min.	Max.	Mean	Max.	Date	Min.	Max.	Date
Albion.....	50.8	76.0	19	16	4.5	63.0	34.2	63.0	11	19	30.7	61.5
Alix.....	.....	.....	18.0	29	1.0	18	28.3	58.0	10	11.5	30	19.6
Athabasca Landing.....	47.9	73.0	3	30	2.0	61.0	27.6	59.0	10	14.0	28	16.1
Banff.....	48.9	74.3	3	15	3.3	51.3	30.2	51.8	12	14.0	30	13.8
Bon Accord.....	.....	.....	25.3	.....	.....	60.5	34.5	60.5	11	11.0	29	22.3
Blackfalds.....	49.2	76.3	20	30	0.0	64.2	34.9	64.2	12	10.2	30	21.0
Calgary.....	51.5	80.0	22	22.0	3.0	72.0	37.4	72.0	10	14.0	29	18.8
Calgary Exp. St'n.....	49.4	74.0	20	30	1.0	64.9	33.8	64.9	11	25.0	29	24.6
Calgary.....	.....	.....	20.0	30	1.0	64.9	33.8	64.9	15	27.1	29	21.4
Edmonton.....	51.8	79.0	26	.....	0.0	64.0	36.6	64.0	9	22.0	29	26.7
Edmonton.....	50.6	77.1	19	30	2.0	60.0	36.4	60.0	12	10.0	30	21.2
Gray Hill.....	52.1	81.5	22	16.5	0.8	63.0	36.4	63.0	9	14.4	29	26.4
Gleichen.....	.....	.....	.....	30	6.0	74.5	36.4	74.5	11	22.0	29	19.6
High River.....	.....	.....	.....	.....	.....	.....	.....	.....	15	28.5	29	29.6
Knee Hill.....	47.8	79.0	22	13.0	9.5	72.0	33.0	72.0	9	25.3	29	17.6
Lethbridge.....	57.2	86.3	10	28.8	4.0	81.3	40.9	81.3	14	20.2	29	30.4
Lloydminster.....	47.3	73.3	20	21.5	4.0	62.8	30.5	62.8	15	14.0	29	15.9
Macleod.....	56.6	82.0	22	32.0	4.0	73.0	40.1	73.0	15	14.0	29	38.0
Medicine Hat.....	59.8	87.0	22	27.7	1.6	85.0	42.4	85.0	10	15.5	29	27.0
Pincher Creek.....	53.5	79.0	23	32.0	6.0	70.0	36.9	65.0	14	11.0	28	30.4
Red Deer.....	48.4	76.0	23	21.0	1.5	64.0	35.9	64.0	12	15.0	29	23.4
Three Hills Creek	49.5	77.5	22	14.5	8.0	72.5	34.0	72.5	9	22.0	29	18.4
Victoria.....	49.5	75.5	19	26.0	2.0	62.0	33.3	62.0	12	14.0	30	14.8
Wetaskiwin.....	49.5	76.0	20	21.0	2.0	64.0	34.9	64.0	13	13.0	29	17.6

HAIL INSURANCE.

The following is a statement kindly furnished by the Treasury Department with reference to the working of the Hail Insurance Ordinance for the year. These figures are for the Province only and have been separated entirely from those pertaining to the other portions of the North-West Territories:

Number of Contracts.....	1,222
Number of claims for indemnity.....	371

Acreage Insured.

Wheat	12,370
Oats.....	37,966
Barley.....	12,158
Flax.....	77
Speltz.....	63
	<hr/>
	62,634

Acreage fully insured.....	56,544
Acreage partially insured.....	6,090
	<hr/>
	62,634

Amount paid for premiums at rate of 15c. per acre.....	\$ 8,944.20
Indemnity paid.....	<hr/>
	33,822.20

Expenses.

Paid Examiners fees	\$2,059.00
Clerical services... ..	600.00
Postage and Post Cards.....	174.00
	<hr/>
	\$2,833.00

Estimated acreage under crop.....	370,000
Acreage insured.....	62,634
Approximate proportion of total acreage under crop insured.....	5.9
Approximate average indemnity paid per acre acreage damaged.....	\$1.90
Number of acres damaged.....	17,832
Percentage of insured acreage damaged.....	28%

II.—NOXIOUS WEEDS.

The work of the local weed inspectors throughout the Province being in the hands of the Chief Weed Inspector for the Territories during the year, I have the pleasure of submitting the following report by this inspector, Mr. T. N. Willing.

REPORT OF THE CHIEF WEED INSPECTOR.

I have the honour to report that owing to the impending changes inspection work was pushed forward at a date rather too early for inexperienced inspectors in some of the districts to detect the noxious weeds; but, nevertheless, they were able to direct the attention of the people to the benefit that would be derived from the checking of all weeds by judicious use of the harrow or weeder on the seed bed and the growing grain. In the older districts where stinkweed has obtained a foothold there is a distinct advantage in early inspection each season.

Fifty-four inspection districts were outlined and assigned to inspectors, but through the resignation of one at a late date the Batoche district was not inspected. Sixteen of the inspectors worked in Alberta and the balance in Assiniboia and Saskatchewan doing an aggregate of 1,948½ days' work and having weeds destroyed on 48 unoccupied farms at a cost of \$976.45, which will be collected from the owners in the usual way. Several parties were prosecuted and fined for infractions of The Weed Ordinance.

Preparatory to their season's work the inspectors were invited to meet at Calgary and Regina at the time of the Fat Stock Shows for the discussion of the ways and means of making their work more effective, and to receive instructions relative to the various matters pertaining thereto. The inspectors who have worked in the older districts expressed themselves strongly in favour of the provisions of the Ordinance being more stringently enforced as the character of the weeds and the methods to adopt for their control are now well known, or should be if the farmers avail themselves of their opportunities. There is no doubt that, although our weed inspection has been carried on since the Department of Agriculture has been in existence, many of the larger farms show a lamentable lack of care on the part of the owners, being foul with weeds of all kinds. How to interest these people and bring them to a sense of the folly of continuing such slovenly work is a problem hard to solve, for all must admit that good farmers cannot be made out of bad by Act of Parliament. However good the laws and earnest and conscientious the inspector there must be a spirit of co-operation on the part of the farmer before satisfactory results are attainable. It then remains for us to pursue educational measures and show that as a business proposition it will pay the farmer to avoid letting weeds occupy large portions of his fields to the exclusion of profitable plants.

Inspection has been extended this season owing to the influx of settlers to the Touchwood Hills, Long Lake and west of Caron in Assiniboia, and west of Calgary and east of Beaver Creek in Alberta. Next year considerable new country will have to be covered, notably the Vermilion district in Northern Alberta and lands in the south which were formerly considered only fit for ranching but which now produce excellent fall wheat. In Saskatchewan lands adjacent to the Prince Albert line of railway and the newer lines will need inspection, and should have a series of meetings to direct the attention of the new settlers to the advantage to be derived from checking the weeds before they gain much headway on the farms. It is thought that there would be an advantage in having municipalities held more directly responsible for permitting weeds to grow unchecked within their boundaries.

The taking back of screenings from the elevators is not, in my opinion, as harmful a practice as the hauling to market of wheat, containing weed seeds, loose in wagon boxes and thereby scattering the smaller seeds along the roads where they may be picked up by wheels or horses' feet and carried throughout the country.

Some of the newer sections of the country have rapidly become infested with weeds by the settlers purchasing foul grain and using it for seed or even bringing such dirty seed with them. All newcomers should be warned against this practice. A little more interest in these matters on the part of immigration officials would be of value to the individual settler and the country as a whole.

In the older settlements an exceedingly high wind in the early summer caused a great spread of weeds by carrying the seeds with the drifting soil over fields and roads.

A few plants of the Russian thistle were detected in the vicinity of Macleod, and a sharp lookout should be kept on this and the Tumbling Mustard in Southern Alberta as the winds carry such weeds rapidly over the country.

The weed most difficult for inspectors to deal with is the wild oat, which has been steadily spreading in the grain fields and is especially abundant in the fields of the Mennonites who came from Southern Manitoba. During the early part of the season inspectors cannot detect it in the crops, and later, when it can be noticed, the only way to prevent it seeding is to have the crop cut green which would be a hardship to the owner. It will apparently be necessary to insist on fall disking and then a summer fallow of the fields found to be badly infested, the spring work being started by a shallow plowing, as soon as a crop of the wild oats has started, then harrowed and replowed a little deeper when another growth shows. In this manner all the oats possible should be started into growth and destroyed in some way before having a chance to produce seed.

Seeds of the purple cockle, which is not yet listed as a noxious weed, show in the grain being shipped to an alarming extent and cause many cars to be graded rejected. The weed is particularly abundant in the Moose Jaw district.

In view of the fact that the perennial sow thistle (*Sonchus arvensis*) is giving a great deal of trouble in Manitoba and has already been noticed at various points in the Territories, it would be well to have

this weed added to the list of noxious weeds in order that its spread may be checked. Another weed that should be looked for is the poison darnel (*Lolium temulentum*), a European grass the seed of which is about the size of a shrunken kernel of wheat and is difficult to separate from that grain. There has been a great deal of this seed in grain shipped from points south of Winnipeg this season.

During the year I addressed a series of meetings in the Carrot River country on the destruction of weeds, and another series in the Yorkton district as well as a number of other meetings at various times and places.

I regret to have to report the death of Mr. F. W. Seymour, of Strathearn, one of our most energetic and satisfactory inspectors.

In concluding I may say that the local inspectors have as a whole proved to be men of good judgment and to them is due the credit for accomplishing such results as have been obtained, without unduly antagonizing the people dealt with.

T. N. WILLING,
Chief Weed Inspector.

III.—AGRICULTURAL EDUCATIONAL WORK.

The returns of the agricultural societies show that during the year a number of meetings were held at which subjects relating to agriculture were under discussion. Although the greater number of these meetings were held during the first eight months of the year, a summary of the work done is included in order to keep the records of this work intact. The meetings held under the auspices of the societies during the early part of the year partook of the nature of stock judging schools. At these schools animals were brought before those in attendance and by means of score cards the desirable and undesirable types of conformation were pointed out. The previous year four of these schools were held in the Province and the interest taken in the work was so great that they were conducted on a much larger scale this year. The speakers were Dr. J. Standish, of Walkerton, a well-known institute worker from Ontario; C. M. MacRae, B.S.A., of the staff of the Live Stock Commissioner's office, Ottawa, and G. R. Cottrelle, of Milton, Ontario, a well-known poultry enthusiast. For the first week these speakers were accompanied by the writer with a stereopticon outfit which was used at the evening meetings to throw upon the screen illustrating typical animals of the various breeds of live stock. The deputation was also accompanied by Mr. Archibald Mitchell, Forestry Inspector of the Dominion Government, who explained the principles of the tree planting scheme which the Department of the Interior is conducting in the interests of the country. The set of lantern slides showed the progress that was being made by many farmers with small plantations, as well as typical specimens of the various trees, with a few slides outlining the work of growing the trees at Indian Head. It will be noticed that quite a number of the meetings were held for two days.

The following is a list of the places and dates at which meetings were held, also the names of the speakers:

PLACE	DATE	JUDGES
Lethbridge	February 20 & 21	J. Standish, C.M. MacRae G. R. Cottrelle and A. Mitchell
Magrath	" 22 & 23	
Cardston	" 24 & 25	
Macleod	" 28 & March 1	
Pincher Creek	March 2 & 3	
Claresholm	" 4	
Nanton	" 6	
High River	" 7	
Okotoks	" 8 & 9	
Didsbury	" 11	
Olds	" 13	
Innisfail	" 14 & 15	
Red Deer	" 16 & 17	

PLACE	DATE	JUDGES
Strathcona.....	March 18	J. Standish, C. M. MacRea and A. Mitchell
Fort Saskatchewan.....	" 20 & 21	
Edmonton	" 22 & 23	
Wetaskiwin.....	" 24 & 25	
Ponoka.....	" 27	
Lacombe.....	" 28 & 29	
Medicine Hat.....	" 31 & April 1	

The Department was fortunate in being favoured with very fine weather for the whole of the series of meetings, not a single day being lost through inclement weather.

Below is a statement showing the number of Institute meetings held by the various agricultural societies, together with their total attendance at meetings and the grant paid to each society on account of institute work.

INSTITUTE STATEMENT 1905.

SOCIETY	No. of Members	No. of Meetings	Total Attendance	Membership Grant paid 1906
Deseret (Magrath).....	86	3	82	\$ 86 00
Didsbury.....	51	2	217	51 00
Innisfail.....	151	8	595	150.00
Lacombe.....	80	2	200	80 00
Lethbridge and district..	226	3	156	150.00
Macleod.....	155	3	110	150 00
Medicine Hat.	153	4	100	150 00
Olds.....	105	1	20	105.00
Okotoks.....	139	2	47	139.00
Pincher Creek	74	3	45	74.00
Ponoka.....	92	1	25	92 00
Raymond	94	2	195	94 00
Red Deer	156	4	160	150.00
Vermilion Valley and Beaver Lake.....	119	....	...	119 00
Wetaskiwin.....	135	2	40	135.00

In addition to the above meetings held under the auspices of the Agricultural societies, others were held at a number of points at which no agricultural society was organized,—the object being to cover the whole Province. Reference to the list of places where stock judging schools were held will show that schools were held at six points where there was no agricultural society.

OFFICIAL JUDGES.

In the early part of the year poultry shows were held at Edmonton on the 13th and 14th of February, and at Lethbridge on the 20th and 21st. The awards at these shows were placed by Mr. G. R. Cottrelle, and the shows were a success in every way.

On April 4th, 5th and 6th the annual spring horse show was held at Calgary. To these judges were supplied in the persons of Dr. Standish and C. M. MacRae of the institute staff, and Mr. Conn, of Ottawa. On May 15th, 16th, 17th and 18th the annual bull sale and cattle show was held, the awards being placed by Mr. Duncan Anderson, of Rugby, Ontario.

Judges were supplied to the summer and fall fairs throughout the Province as follows:

FAIRS AT WHICH JUDGES supplied by the Department placed the awards in the classes for Horses, Cattle, Sheep, and Swine.

FAIR	DATE	JUDGES
Edmonton Industrial Exhibition Association	June 30 & 31	J. Standish, V.S., and W. W. Fraser
Lacombe	July 1	
Wetaskiwin	" 4	
Inter-Western Pacific Exhibition Co., Calgary	" 5 to 7	
Innisfail	" 7	
Okotoks	" 11	
Lethbridge	Aug. 16 & 17	Bryce Wright and M. D. Geddes
Raymond	" 17 & 18	
Olds	Sept. 19 & 20	
Strathcona Exhibition Association (Ltd.)	" 21 & 22	
Medicine Hat	" 28 & 29	
Macleod	Sept.	M. D. Geddes

FAT STOCK SHOW.

The first fat stock show held in the Province was that held at Calgary on the 15th, 16th, 17th and 18th of May. It was held directly under the supervision of the Territorial Department of Agriculture in conjunction with the various live stock associations. For a beginning the show was a decided success, the various classes being fairly well filled and competition very keen in some cases.

The quality of the exhibits on the whole was very even, fairly high, and very creditable for a beginning. The champion animal owned by Geo. Duncan, of Innisfail, was a remarkably fine, well-bred, Shorthorn grade steer, carrying a wealth of flesh laid on in the most valuable places. An attempt was made in connection with the show to have a block test. Quite a large number of animals were entered including the champion steer. The animals after being slaughtered were hung up in P. Burns & Co.'s city store. They were judged, cut up and demonstrations given of the class of meat the butcher was looking for. It is pleasing to know in this connection that the champion steer proved to be the best carcass when he

was cut up. Had he been continued on feed for another year he would have made a model animal. The following is a list of the prize winners:

Cattle.

Class 1.—Purebred Shorthorns.

Sec. 1. Steer or Heifer, 3 years old and over.

1st., Hon. W. Beresford, Calgary;

2nd., R. K. Bennett, Calgary.

Sec. 1a. Cow, 3 years old and over.

1st., Thos. Talbot, Lacombe;

2nd., J. A. Turner, Calgary.

Sec. 2. Steer or Heifer under 3 years.

1st, R. K. Bennett, Calgary;

2nd, Hon. W. Beresford, Calgary;

3rd, C. W. Peterson, Calgary.

Class 4.—Grade Steers.

Sec. 1. Steer, 3 years old and not over 4.

1st and 2nd. Indian Industrial School, Dunbow.

Sec. 2. Steer, 2 years old and under 3.

1st, Geo. Duncan, Innisfail;

2nd, Thos. Talbot, Lacombe.

Sec. 3. Steer, 1 year old and under 2.

1st, Harold Banister, Davisburg;

2nd, Harold Banister, Davisburg.

Class 5.—Grade Cows and Heifers.

Sec. 1. Cow, 4 years old and over.

1st, Bryce Wright, DeWinton.

2nd, P. Talbot & Son, Lacombe.

Class 6.—Grand Championships.

Sec. 1. Best Beef Heifer any grade or breed under 4 years old. (Special by Nor' West Farmer, Winnipeg.)

Hon. Wm. Beresford, Calgary.

Sec. 2. Best Beef Animal any age, pure bred or grade. (Silver Medal by Territorial Cattle Breeders' Association.)

Geo. Duncan, Innisfail.

Class 7.—Dressed Carcasses.

1st., Geo. Duncan, Innisfail.

2nd., Indian Industrial School, Dunbow.

3rd., Thos. Talbot, Lacombe.

Sheep.

Class 9.—Medium Wools.

Sec. 1. Ewe or Wether, 1 year and over.

1st, J. A. Turner, Calgary;

2nd, C. W. Peterson, Calgary.

Sec. 2. Ewe or Wether, Lamb.

1st, Master Dick Brown, Calgary.

Class 10.—Grades or Crosses.

Sec. 1. Ewe or Wether, 1 year and over.

1st, 2nd and 3rd, C. W. Peterson, Calgary.

Class 11.—Grand Championship.

Sec. 1. Best Sheep, any age, purebred or grade. (Silver Medal by Territorial Sheep Breeders' Association.)

J. A. Turner, Calgary.

Class 12.—Dressed Carcasses.

All to J. A. Turner, Calgary.

Swine.

Class 13.—Purebred Swine.

Sec. 1. Barrow or Sow, 9 months and under 18.

1st, 2nd and 3rd, C. W. Peterson, Calgary.

Class 14.—Grades.

Sec. 1. Barrow or Sow, 9 months and under 18.

1st, 2nd, 3rd, 4th and 5th, W. J. Tregillus, Calgary.

Class 15.—Grand Championship.

Sec. 1. Best Hog, any age, purebred or grade. (Silver Medal by Territorial Swine Breeders' Association.)

W. J. Tregillus, Calgary.

Class 16.—Dressed Carcasses.

All to W. J. Tregillus, Calgary.

IV.—LIVE STOCK.

The health of the live stock throughout the Province was remarkably good. A few reports were received of cases of swamp fever in horses, but on the whole little of serious nature was reported other than confirmation of the prevalence in the southern portion of the Province of the disease reported last year and known as *Maladie du Coit*, or equine syphilis. The Veterinary Branch of the Federal Government are taking steps to bring this disease under control.

Energetic measures adopted by the Veterinary Branch of the Federal Government requiring compulsory dipping of cattle over the area in the southern portion of the Province affected with mange has been productive of much good, and it is not expected that much more trouble will be occasioned by this scourge.

ENROLMENT OF STALLIONS.

During the year The Horse Breeders Ordinance has been enforced and the following is a statement of the number of stallions enrolled:

BREED	NO. ENROLLED
Clydesdale.....	25
Percheron.....	10
Shire.....	4
Standard Bred.....	2
Hackney.....	1
Thoroughbred.....	1
French Coach.....	2
French Draft.....	4
Total Pure Bred.....	49
Grades.....	98
Total enrolment.....	147

STOCK INSPECTION.

Below will be found the usual returns with regard to the number of stock shipped from the various stations throughout the Province, as shown by the stock inspectors' returns. It was found that a number of points at which considerable stock was shipped were not provided with inspectors. The blank forms for making returns being loose sheets full returns were not made to the Department. This would occur very readily unless the inspector was exceedingly careful in retaining his stubs. This will be more readily understood when it is known that the inspector is required to hold these stubs for a year before he forwards them to the Department. The result is that the figures given below are not nearly as high as those published by the Canadian Pacific Railway Company. For the year 1905 this railway company's returns show that approximately 5,000 head of cattle and 1,000 horses were shipped by them from Alberta points in excess of these returns.

DEPARTMENT OF AGRICULTURE

SHIPPING POINT	INSPECTOR	EXPORTS				LOCAL SHIPMENTS		TOTAL	
		East		West		Cattle	Horses	Cattle	Horses
		Cattle	Horses	Cattle	Horses				
Brooks Station	E. Crocker	5,064	...	66	...	...	5	5,130	5
Calgary	C. Creswell	4,635	498	3,611	226	341	539	8,587	1,263
Carstairs	Robt. Scott	57	...	197	...	219	...	473	...
Cochrane	W. B. Elliott.	1,234	73	80	22	20	6	1,334	101
Coutts	H. Tennant	1,255	...	...	...	456	...	1,771	...
Clareholm	C. Sharples	1,262	3	44	...	...	...	1,306	...
Gleichen	J. J. Marshall.	2,031	422	...	...	109	53	2,140	475
High River	D. E. Riley	4,810	288	2,054	20	325	89	7,189	397
Innisfail	H. A. Hetherington	179	4	17	8	228	...	424	12
Lacombe	J. M. Burdick	823	1	1,030	28	973	69	2,826	104
Leduc	J. T. Joinson.	19	...	...	...	317	...	336	...
Lethbridge	J. J. Turman.	5,161	...	...	...	4,073	1,520	9,234	1,520
Macleod	R. G. Mathews	2,706	406	532	186	555	1,033	3,793	1,625
Medicine Hat	J. H. G. Bray	11,549	2,433	18	45	1,465	248	13,032	2,726
Morley	David McDougall	25	55	...	11	99	9	124	75
Nanton	H. M. Shaw	...	102	...	...	36	71	36	173
Okotoks	Jno. Patterson	550	97	43	25	43	51	636	173
Olds	Wm. Dean	279	...	79	...	238	9	596	9
Pine'ar Creek	G. B. Bolster	1,538	117	512	67	723	226	2,803	410
Ponoka	A. Reid	67	...	143	...	6	2	216	2
Red Deer	A. B. Nash	222	2	90	...	119	3	431	5
Strathcona	A. C. Murphy.	346	111	161	...	194	5	701	116
Strathmore	Jas. Gordon...	1,148	76	114	...	44	...	1,206	76
Wetaskiwin	P. A. Miquelon	276	1	47	...	818	39	1,141	40
		45,266	4,695	8,838	638	11,401	3,977	65,505	9,310

ANIMALS RUNNING AT LARGE.

Below will be found statements giving the number of animals taken up under The Stray Animals Ordinance which have been sold by the various Justices of the Peace, also under The Entire Animals Ordinance and Pound District Ordinance:

SALES OF ANIMALS UNDER THE STRAY ANIMALS ORDINANCE 1905.

JUSTICE	ADDRESS	CLASS OF ANIMAL	DATE OF CAPTURE	FIRST GAZETTE NOTICE	DATE OF SALE	REM'D TO DEPT.
A. P. Patrick.	Calgary	Steer, roan, branded inverted Y on right hip	Jan. 1, 1903	Mar. 31, 1904	Feb. 8, 1904	\$23.42
David Davidson.	Spring Lake	Mare, bay, 12 years old, star on forehead, branded oarlock on shoulder	Aug. 17, 1904	Sep. 23, 1904	Mar. 31, 1905	66.93
David Davidson.	Spring Lake	Mare, bay, 4 years old, star on forehead, branded oarlock on shoulder	Aug. 17, 1904	Sep. 23, 1904	Mar. 31, 1905	80.60
J. A. Connelly.	Strathcona	Horse, branded UE monogram on left hip	Oct. 3, 1903	Aug. 31, 1904	June 2, 1905	12.45
John McKenty.	Lacombe	Pony, sorrel, three white feet and white star, unbranded	May 25, 1904	Sep. 15, 1904	June 3, 1905	14.85
Wm. Campbell.	Vernilion Valley	Cow, red, short stubby horns, no visible brand	Aug. 11, 1904	Apr. 29, 1905	June 1, 1905	8.10
W. B. Gray.	Bullocksville	Mare, sorrel cayuse, two years old, unbranded	Oct. 12, 1904	Dec. 31, 1904	Aug. 16, 1905	14.50
W. B. Gray.	Bullocksville	Cow, aged, broken horn, indistinct brand on left shoulder, calf at foot	Apr. 3, 1905	Apr. 15, 1905	Oct. 18, 1905	12.38
W. B. Gray.	Bullocksville	Steer, spotted, three years old, branded GZ on left hip	Apr. 3, 1905	Apr. 15, 1905	Dec. 16, 1905	12.37
F. Fane.	Beaver Lake	Gelding, cayuse, dark bay, unbranded	May 30, 1905	June 15, 1905	Dec. 16, 1905	14.05
F. Fane.	Beaver Lake	Heifer, light red, one horn broken, ears split branded SC on right hip	Dec. 1904	Jan. 14, 1905	Aug. 19, 1905	8.18
A. S. Rosenroll.	Wetaskiwin	Steer, red and white, one year old, no brand visible	Dec. 1904	Jan. 14, 1905	Aug. 19, 1905	12
A. S. Rosenroll.	Wetaskiwin	Steer, black cut in right ear, one year old, unbranded	Jan. 20, 1904	Jan. 30, 1904	Jan. 21, 1905	....
A. S. Rosenroll.	Wetaskiwin	Mare, black, seven years old, branded lazy B on right hip	May 7, 1904	June 15, 1904	June 21, 1905	17.55
R. Dinwoodie.	Dinwoodie	Mare, bay, aged, small saddle mark, branded B on left flank	Dec. 10, 1904	Feb. 15, 1905	Sept. 5, 1905	34.54
R. T. Telford.	Leduc	Gelding, bay, white strip on face, branded diamond C on left shoulder	Dec. 1, 1904	Jan. 16, 1905	Aug. 7, 1905	35.90
Francois Adam.	Camrose	Pony, bay, with white face, branded B on right thigh	Dec. 1904	Jan. 14, 1905	July 8, 1905	33.10
"	"	Pony, roan, aged, branded VM, white face, white hind legs, saddle marks	Oct. 15, 1903	Oct. 31, 1904	Apr. 4, 1905	8.63
"	"	Mare, bay, six years old, branded RL on left hip, inverted RL on left shoulder	Aug. 1, 1904	Sept. 15, 1904	Apr. 4, 1905	64.69

C. L. Peterson	Didsbury	Steer, dehorned, white spot on belly, branded A over C on left ribs	Aug.	1903 June 30, 1904 Jan. 10, 1905	\$19.54
"	"	Steer, red, branded A over C on left ribs	Aug.	1903 June 30, 1904 Jan. 10, 1905	16.53
"	"	Steer, red and white, large horns, branded D over P on left hip	Aug.	1903 June 30, 1904 Jan. 10, 1905	20.53
J. S. McDonald	Heather Brae.	Mare, brown, pony, branded Y, lazy S over on left shoulder	June 20, 1904	July 15, 1904 Mar. 6, 1905	35.03
"	"	Steer, white, rope on neck, branded I.W. on left hip, arbitrary brand on left flank.	Nov. 15, 1904	Nov. 30, 1904 May 30, 1905	5.40
W. E. G. Holmes	High River.	Cow		June 14, 1905	14.37

SALES OF ANIMALS UNDER THE ENTIRE ANIMALS ORDINANCE 1905.

JUSTICE	ADDRESS	CLASS OF ANIMAL	DATE OF CAPTURE	FIRST GAZETTE NOTICE	DATE OF SALE	REMIT- TED TO DEPT.
J. Benson	Medicine Hat.	Stallion, dark brown, branded A4 on left shoulder	Sept.	1900 May 1, 1905	June 15, 1905	\$39.75
G. Shantz	Lewisville	Stallion, bay, four years old, white hind feet, unbranded	June 22, 1905	July 31, 1905	Aug. 19, 1905	.....
A. E. Humphries	Lethbridge	Stallion, brown, branded lazy D bar under on right flank	Nov. 6, 1904	Nov. 30, 1904	Jan. 6, 1905	.....
C. C. Saunders	Calgary	Bull, red, one year old, branded, lazy 53 bar under, on left ribs	Feb. 17, 1904	Jan. 14, 1905	Feb. 17, 1905	.....

SALES OF ANIMALS UNDER THE POUND DISTRICT ORDINANCE 1905.

JUSTICE	ADDRESS	CLASS OF ANIMAL	FIRST GAZETTE NOTICE	DATE OF SALE	REMIT- TED TO DEPT.
J. B. Wasden	Raymond	Horse, bay, four white feet, white strip on face, branded lazy Y on right shoulder	Oct. 15, 1905	Nov. 25, 1905	\$1.63
"	"	Steer, eighteen months old, branded HH on right ribs	Oct. 31, 1905	Nov. 25, 1905	.....
"	"	Steer, red and white, two years old, branded F6 bar over on left ribs	Oct. 31, 1905	Nov. 25, 1905	2.90
"	"	Bull, red, branded EK on left shoulder	Nov. 15, 1905	Nov. 25, 1905	1.48

DESTRUCTION OF WOLVES.

The destruction of wolves in the past has been confined to that part of Southern Alberta adjacent to the main lines of the Canadian Pacific Railway.

A comparative statement is appended showing the number of wolves destroyed, which shows a very marked annual decrease notwithstanding the very liberal bounties offered. The only inference to be deduced from this is that this pest is gradually being exterminated. The total sum paid in bounties during 1905 amounted to \$1,660.00; the scale on which bounties are paid by the Western Stock Growers Association being \$15.00 for each adult wolf, and \$5.00 for each pup.

Considerable correspondence has been received from farmers resident in other parts of the Province requesting that the payment of wolf bounties be extended to them. As these regulations do not appear to be generally known, they are here appended:

“REGULATIONS for the issue and payment of Warrants for the Destruction of Wolves by the Provincial Stock Associations.

“Any association paying bounties under these regulations shall file for the approval of the Minister of Agriculture a schedule showing the scale upon which such bounties are to be paid.

“The pelt (including the head) of each timber wolf upon which bounty is claimed must be produced intact to the inspector by the person claiming the bounty.

“The issuer of the warrant shall use every means in his power to satisfy himself as to the sex of any wolf where bounty is claimed on bitch wolves and as to the age where bounty is claimed on adult wolves. Bounties on adult males are only to be paid when the issuer is satisfied that the animals are sufficiently developed to be destructive of themselves.

“Upon the production of the pelt of any timber wolf to him, and on being satisfied that the animal killed was a timber wolf and not a coyote or other species of the wolf family, the issuer of the bounty warrant shall punch a portion out of each ear, so as to effectually prevent duplication, and may issue a warrant to the claimant for the amount of the bounty. The inspector shall number consecutively and keep a list of all warrants issued, and shall send a copy of such list to the secretary of his association periodically.

“Upon the warrant being sent to the said secretary as a voucher a payment of the amount of the bounty is to be made to the person named in the warrant, who will give his receipt therefor on the warrant.

“On the first day of June, September, and December in each year, the secretary of any association paying bounties under these regulations shall mail to the Department of Agriculture at Edmonton, all such receipted warrants, accompanied by a statement in duplicate showing the number of each voucher, the amount of the same, and in whose favour issued.

“A payment will then be made out of any legislative appropriation in that behalf (until exhausted) of the whole of the total

amount to be paid out in bounties upon wolves by such association for the period covered by the statement. These regulations remain in effect until otherwise specified."

COMPARATIVE STATEMENT OF WOLVES DESTROYED.

ASSOCIATION	YEAR	DOGS	BITCHES	PUPS	TOTAL
Western Stock Growers.....	1905	33	21	170	224
	1904	58	38	230	326
	1903	19	22	289	330
	1902	51	40	274	365
	1901	68	68	238	374
	1900	73	54	264	391
	1899	75	43	336	454
Total.....	.....	377	286	1,801	2,464

V.—AGRICULTURAL FAIRS.

The following is an exhibition statement of the various societies and exhibition associations showing the date of the exhibition, number of entries, the amount paid in prizes, and the amount of the grant paid.

EXHIBITION STATEMENT.

SOCIETY	Date of exhibition	No. of Entries	Amount paid in prizes for Sports and Races	Amount paid in other prizes	Exhibition grant paid 1905
Deseret (Magrath).....	Sept. 20	274	. . . .	\$297.50	\$198.33
Didsbury.	Oct. 3	174	. . . .	129.00	. . . .
Innisfail.	July 7, Oct 12	760	. . . .	807.00	538.00
Lacombe.....	June 30, July 1	404	. . . .	526.50	351.00
Lethbridge and district. . .	Aug. 16, 17	640	\$1776.30	941.50	627.66
Macleod.	Sept.	369	770.50	553.75	369.16
Medicine Hat.....	Sept. 29, 30	752	. . . .	657.25	438.17
Olds.....	Sept. 19, 20	528	. . . .	278.75	185.83
Okotoks.	July 11	. . . .	. . . .	450.75	300.50
Pincher Creek.....	Oct. 5	210	. . . .	512.00	336.33
Ponoka.....	Oct. 4, 5	300	175.00	193.00	. . . .
Raymond.	Aug. 17, 18	251	516.85	250.00	167.00
Red Deer.	Aug. 30, 31	665	10.00	146.00	. . . . .
Vermilion Valley and Beaver Lake.	Sept. 29	715	25.00	475.75	317.16
Wetaskiwin.....	July 4	354	371.50	258.25	172.16
Edmonton Industrial Exhibition Association....	June 29, 30 July 1	936	4,605.70	2,251.50	1,000.00
Fort Saskatchewan Indus- trial Exhibition Associa- tion.	Aug. 9	324	50.00	339.50	225.33
Inter-Western Pacific Exhibition Co. . . .	July 5 to 7	777	2,434.15	2,667.25	1,000.00
Strathcona Exhibition Association, Limited.....	Sept. 21, 22	441	323.00	771.35	514.23

The following is the financial statement of the various societies and exhibition associations showing the summary of the year's work:

FINANCIAL STATEMENT.

Society	Bal. on hand from 1904	Miscellaneous Receipts	Govt. Grant paid in 1905	Total Receipts	Total Expenditure	Balance on hand	Assets	Liabilities
Deseret	\$262.35	\$ 275.30	\$ 88.00	\$ 625.65	\$ 619.02	\$ 6.63	\$ 506.63	\$ 400.00
Didsbury	41.85	165.00	92.00	298.85	247.35	51.50	51.50	
Innisfail	15.28	1,115.27	542.00	1,672.55	11,662.36	10.19	2,735.06	730.00
Lacombe	7.54	993.35	427.00	1,672.89	1,219.59	8.30	2,058.30	875.00
Lethbridge and district	84.92	573.99	489.07	5,591.04	5,577.02	14.02	5,042.02	1,672.00
Macleod	13.08	1,926.25	457.70	2,407.03	2,395.01	12.02	531.19	450.00
Medicine Hat	276.77	470.75	548.00	1,295.52	1,198.80	96.72	342.12	46.00
Olds	122.42	1,420.55	108.00	1,650.97	1,515.80	135.17	2,254.17	1,370.58
Okotoks	18.78	671.20	193.67	883.65	673.27	210.38	209.33	10.00
Pincher Creek	61.25	601.50	171.23	833.98	638.80	195.08	3,395.18	
Ponoka .....	.....	603.98	115.00	728.98	728.98	.....	.....	.....
Raymond .....	.....	2,284.88	.....	2,284.88	2,284.88	.....	1,225.43	908.83
Red Deer	232.85	3,456.13	396.82	4,085.80	4,085.80	.....	5,000.00	3,123.13
Vermilion Valley and Beaver Lake	32.30	503.36	343.67	879.33	879.33	.....	56.00	29.41
Wetaskiwin	51.41	749.66	150.00	951.06	846.45	104.61	104.61	.....
Edmonton Industrial Exhibition Association	117.37	45,591.35	1,000.00	46,709.72	46,548.64	161.18	50,599.28	25,459.80
Fort Saskatchewan Industrial Exhibition Association	82.94	2,651.04	323.20	2,974.24	2,821.70	152.54	10,535.00	620.00
Inter-Western Pacific Exhibition Company	103.59	13,254.36	1,000.00	14,362.95	14,143.00	219.95	603.50	175.00
Strathcona Exhibition Association	190.42	4,914.20	477.50	5,582.12	5,213.42	368.70	6,000.00	1,400.00

VI.—DAIRYING.

The creamery industry in this Province has passed through its critical period and is now firmly established under Government control.

The Department is indebted to Mr. J. A. Ruddick, Dairy Commissioner at Ottawa, for the statement of business done at the various creameries throughout the Province of Alberta during 1905, which shows an excellent increase, both in output and value, over previous years. The number of pounds of butter manufactured in 1905 exceeds the output of 1904 by 397,239 lbs., and the average price of 21.35 cents per pound realized at the creameries, is the highest ever received.

GOVERNMENT CREAMERIES, ALBERTA.

SUMMARY OF BUSINESS done during the seasons 1898 to 1905 inclusive.

NAME OF CREAMERY		No. of Patrons	Inches of Cream Supplied	Lbs. of Butter manufactured	Average price realized at Creamery	Manufacturing charge per pound	No. of days in operation	Gross value of Product
					Cents	Cts.		
Blackfalds....	1903	63	29,541.8	35,981	19.29	4	119	\$6,941 55
	1904	84	32,384.4	40,048	20.50	4	181	8,213.39
	1905	120	59,386.2	76,703	21.30	4	188	16,340 89
Beaver Hills....	1905	44	14,183.8	19,527	20.76	4	140	4,057 14
Calgary.....	1898	59	15,627	19,389	20.25	4	168	3,926 70
	1899	43	24,806.7	24,677	21.56	4	174	5,319 47
	1900	65	31,624.2	34,099	20.20	4	178	6,893.20
	1901	64	27,427.6	28,178	19.28	4	163	5,435 20
	1902	41	16,981	19,162	23.89	4	184	4,578 48
	1903	58	30,482.1	33,286	20.05	4	184	6,675 14
	1904	20	12,450.5	14,018	20.90	4	179	2,930 31
	1905	56	29,788.2	33,312	21.07	4	168	7,019 19
Clover Bar.....	1905	57	12,565.4	13,057	21.57	4	125	2,817 38
Earlville.....	1905	77	22,834.8	30,681	21.55	4	127	6,612 68
Edmonton ..	1898	48	12,346	17,068	18.80	4	156	3,209 19
	1899	49	14,149.9	17,322	20.96	4	160	3,631 56
	1900	51	18,693.7	17,089	20.60	4	168	3,520 61
	1901	59	17,210.9	16,508	20.00	4	153	3,302 29
	1902	37	13,012.8	14,217	19.93	4	143	2,833 92
	1903	51	14,557.0	16,348	19.76	4	122	3,231 40
	1904	27	9,128.7	11,758	20.50	4	122	2,410 92
	1905	...	.....	.....	.....	..	...	.....
Evarts.....	1905	80	24,244.4	27,036	21.01	4	171	5,682 33
Innisfail.....	1898	105	39,003	57,717	20.40	4	184	11,775 55
	1899	156	68,924.8	86,040	20.69	4	184	17,805 53
	1900	130	84,429.2	89,402	20.05	4	184	17,926 15
	1901	131	83,588.3	90,484	19.16	4	184	17,338 49
	1902	118	90,329.6	99,245	20.86	4	184	20,709 49
	1903	180	118,428.5	141,372	19.34	4	184	27,338 41
	1904	193	126,223.2	158,719	20.64	4	181	32,774 11
	1905	204	152,258.4	199,466	21.44	4	188	42,780 52

GOVERNMENT CREAMERIES, ALBERTA.

SUMMARY OF BUSINESS done during the seasons 1898 to 1905 inclusive.

NAME OF CREAMERY		Number of Patrons	Inches of Cream Supplied	Lbs. of Butter manufactured	Average price realized at Creamery	Manufacturing charge per pound	No. of days in operation	Gross value of Product
					Cents	Cts.		
Lacombe.....	{ 1903	51	10,831.6	14,138	19.31	4	98	2,730 10
	{ 1904	54	19,200.9	22,587	20.44	4	181	4,617 51
	{ 1905	105	47,485	59,768	21.29	4	188	12,728 61
Olds.....	{ 1900	31	11,597.6	11,007	20.00	4	93	2,201 70
	{ 1901	30	22,195.5	22,166	19.11	4	169	4,236 98
	{ 1902	49	38,892.1	42,637	20.73	4	217	8,841 31
	{ 1903	79	53,879.3	65,904	19.27	4	184	12,714 40
	{ 1904	58	38,850.1	48,388	20.57	4	181	9,956 80
	{ 1905	93	80,644.6	103,506	21.38	4	188	22,136 38
Red Deer....	{ 1898	76	28,253	42,878	19.84	4	184	8,507 54
	{ 1899	110	46,676	62,142	20.87	4	184	12,968 23
	{ 1900	92	49,475	63,887	20.24	4	182	12,933 18
	{ 1901	111	47,665.2	60,450	19.61	4	188	11,583 12
	{ 1902	83	43,481.4	55,091	20.54	4	184	11,320 28
	{ 1903	179	63,689.9	80,546	20.37	4	184	16,410 21
	{ 1904	98	58,973.1	74,447	20.63	4	181	15,365 16
	{ 1905	131	80,335.9	101,031	21.41	4	188	21,634 92
Tindastoll....	{ 1899	66	6,350.2	14,655	21.78	4	112	3,192 51
	{ 1900	75	37,374.1	45,770	20.04	4	184	9,173 08
	{ 1901	41	28,235.8	31,527	19.15	4	184	6,037 87
	{ 1902	61	42,052.5	48,086	20.74	4	172	9,977 71
	{ 1903	74	46,639.2	51,169	19.28	4	184	9,864 96
	{ 1904	57	36,368.0	43,725	20.50	4	181	8,967 39
	{ 1905	78	65,536.0	65,536	21.39	4	188	14,024 56
Wetaskiwin..	{ 1898	58	8,576	27,136	20.08	4	192	5,449 65
	{ 1899	71	14,815.4	32,350	20.99	4	184	6,789 29
	{ 1900	66	16,384.1	33,770	20.01	4	184	6,787 70
	{ 1901	27	7,918.1	12,185	19.17	4	160	2,338 10
	{ 1902	...	.....	.....	.....	...	...	.....
	{ 1903	32	15,447.1	18,667	19.32	4	152	3,610 63
	{ 1904	9	2,242.8	2,501	21.22	4	63	530.75
Province of Alberta.....	{ 1905	156	69,208.7	83,807	21.28	4	156	7,836 80
	{ 1898	346	103,805	164,188	20.01	4	...	32,868 63
	{ 1899	495	175,723	237,186	20.95	4	...	49,706 59
	{ 1900	510	249,577.9	295,024	20.14	4	...	59,435 62
	{ 1901	463	234,241.4	261,498	19.18	4	...	50,272 05
	{ 1902	389	244,749.4	278,438	20.92	4	...	58,261 19
	{ 1903	767	383,496.5	457,411	19.57	4	...	89,516 80
	{ 1904	600	335,821.7	416,191	20.60	4	...	85,766 34
	{ 1905	1201	658,471.4	813,430	21.35	4	...	173,671 40

VII.—PUBLIC HEALTH.

The Department has spared no effort to facilitate the furnishing of medical health reports required under section 16 of The Public Health Ordinance from all medical men, of the occurrence of infectious and contagious diseases, but in spite of this, medical men have been very dilatory in supplying them, although the information thus gathered is presented mainly for the benefit of the medical fraternity. One instance which is particularly noticeable on making a comparison of the tables in connection with public health and mortuary statistics is; that while only twenty-seven cases of tuberculosis were reported as having been attended seventy-one deaths from this disease were certified to by doctors who attended the deceased persons. The attached statistical table is, therefore, of little practical value although it gives a summary of all cases reported, but only refers to cases where medical men were called in and cannot be considered as giving the entire number of cases of infectious and contagious disease which occurred in the Province.

The reports from medical health officers of the municipalities have in most cases been forwarded to the Department with the requisite regularity and that part of the table can therefore be considered fairly accurate.

Very few outbreaks of disease occurred throughout the Province during the year. Many reports were received with regard to the rumoured prevalence of such, as the general public appear to think that the Department is called upon to supply medical aid, whereas there is no appropriation for this purpose and the Department is only interested in seeing that the provisions of The Public Health Ordinance are enforced.

Although bulletins printed in different languages setting forth the duties of the public with regard to the prevention of the spread of infectious and contagious disease have been widely distributed, it is found that a considerable number of the foreign element take no precaution, having contracted disease, except to conceal it. Instances have been brought to the notice of the Department where from sixteen to fifty people have attended funerals of persons who have died from contagious diseases, the whole of the sympathizers crowding into the room in which the person had died. This is an act of folly and ignorance which is fraught with danger to the general public.

The members of the Royal North-West Mounted Police, whose services are hereby acknowledged, still continue to do efficient service in maintaining quarantine and acting as supply agents to those quarantined.

CONTAGIOUS AND INFECTIOUS DISEASES IN RURAL DISTRICTS AND MUNICIPALITIES.—CASES REPORTED.

	Chickenpox				Diphtheria				Measles				Scarlatina				Smallpox				Tuberculosis				Typhoid				Others				Province of Alberta				
	Jan.—Mar.	Apr.—Jun.	Jul.—Sept.	Oct.—Dec.	Total	Jan.—Mar.	Apr.—Jun.	Jul.—Sept.	Oct.—Dec.	Total	Jan.—Mar.	Apr.—Jun.	Jul.—Sept.	Oct.—Dec.	Total	Jan.—Mar.	Apr.—Jun.	Jul.—Sept.	Oct.—Dec.	Total	Jan.—Mar.	Apr.—Jun.	Jul.—Sept.	Oct.—Dec.	Total	Jan.—Mar.	Apr.—Jun.	Jul.—Sept.	Oct.—Dec.	Total							
Rural Districts	19 10	1	29	13	61	25	7	7	52	36	41	14	26	117	7	4	1	11	5	5	7	5	22	12	3	31	16	62	13	2	4	19	418				
Municipalities	12 2	1	15	29	56	79	9	3	111	6	7	15	33	61	1	1	1	1	1	1	1	3	4	22	13	39	1	1	1	1	1	354					
Province of Alberta	31 12	1	44	42	64	47	76	229	33	104	16	10	163	42	48	29	59	178	7	5	1	12	6	5	8	6	25	16	3	53	29	101	14	2	4	20	772

VIII.—VITAL STATISTICS.

Section 4 of The Vital Statistics Ordinance provides that divisions shall be established for the registration of births, marriages and deaths, and those divisions used by the Territorial Government have been adopted by this Department with the exception that the eastern boundaries of the Victoria, Strathcona, Wetaskiwin, Lacombe, and Innisfail districts have been extended to the fourth meridian. Owing, however, to the rapid increase of the population it has been found that to live up to the provisions of the aforesaid section would entail a continual rearranging of the boundaries of the divisions, with an attendant confusion as to where registrations should be sent. It is, therefore, advisable that this clause should be repeated, and if this is done the Department will be able to appoint more registrars thereby enabling the public to more easily furnish the information required from them.

The Minister taking advantage of Section 127 of the Postal Regulations, requested all postmasters to act as agents for the custody and issue of the blank forms used in the registrations of vital statistics and instructed registrars to supply postmasters with them. This enables the public to obtain any blank form required with very little trouble, thereby greatly facilitating the furnishing of returns.

It was found that registrations were being supplied in a very dilatory manner, and the Department therefore endeavoured to bring the provisions of this Ordinance to the notice of the general public by means of posters, distributed to all post offices, embodying the duties of the public with regard to the registration of births, marriages and deaths. Copies of the Ordinance were also mailed to all clergymen resident in the Province, the result of these measures being that several hundred delinquent registrations were received. This showed the urgent necessity of an improved method of collecting them, and this matter is now engaging the attention of the Department. The chief difficulty which presents itself to registrars is in dealing with those settlers who are ignorant of the official language, but it is hoped that this will to a certain extent be overcome by the distribution of public notices printed in different languages.

During the four months ending December 31st, 1905, thirteen certified extracts and thirteen searches of the Vital Statistics Records were made in accordance with the provisions of Section 20 of the Ordinance.

The following tables in connection with this work will be of general interest to many:

VITAL STATISTICS—1905.

DIVISION	BIRTHS			MARRIAGES	DEATHS			
	Male	Fe- male	Total		Male	Fe- male	Total	
Banff.....	24	24	48	8	11	...	11	
Calgary.....	284	289	573	305	184	107	291	
Cardston.....	53	41	94	15	10	3	13	
Edmonton.....	120	118	238	116	60	38	98	
High River.....	45	41	86	28	13	7	20	
Innisfail.....	72	75	147	41	24	16	40	
Lacombe.....	127	106	233	119	46	38	84	
Lethbridge.....	197	155	352	50	56	26	82	
Macleod.....	87	83	170	71	43	20	63	
Medicine Hat.....	97	121	218	43	40	24	64	
St. Albert.....	89	69	158	33	33	27	60	
Strathcona.....	119	98	217	79	42	39	81	
Victoria.....	307	299	606	106	69	72	141	
Wetaskiwin.....	207	205	412	98	46	47	93	
Recapitulation.....	1905	1,828	1,724	3,552	1,112	677	464	1,141
	1904	1,653	1,478	3,131	925	587	440	1,027
	1903	1,329	1,258	2,587	796	490	386	876
	1902	1,199	1,187	2,386	528	526	393	919
	1901	942	871	1,813	511	337	173	510
	1900	794	773	1,567	404	308	234	542
Increase over 1904.....	175	246	421	187	90	24	114	

BIRTHS BY MONTHS—1905.

Month	Male	Fe- male	Tot'l	Month	Male	Fe- male	Tot'l
January.....	137	155	292	July.....	123	138	261
February.....	120	126	246	August.....	160	149	309
March.....	133	139	272	September..	187	154	341
April.....	159	137	296	October.....	167	143	310
May.....	146	140	286	November ..	171	195	366
June.....	149	113	262	December.....	176	135	311

MARRIAGES.—Religious Denomination of Contracting Parties.

BRIDE GROOMS				BRIDES												
Officiating Clergymen	Religious Denomination	Methodist	Presbyterian	Roman Catholic	Anglican	Baptist	Lutheran	Latter Day Saint	Greek Catholic	Moravian	Mennonite	Evangelical Reformed	Congregationalist	Others	Not stated	Total
256	Methodist.....	161	33	6	8	10	8	1	1	1	..	..	1	7	..	237
245	Presbyterian	30	118	1	26	8	3	..	..	..	..	..	..	8	..	194
199	Roman Catholic	2	2	184	7	3	4	..	2	..	..	..	..	5	1	210
166	Anglican.....	16	19	10	92	8	3	..	..	..	..	..	1	..	..	149
83	Baptist.....	7	7	..	5	34	5	..	..	..	..	..	..	1	..	59
54	Lutheran.....	5	1	1	2	3	88	..	..	5	..	..	..	..	..	105
30	Latter Day S'nt	..	..	..	..	..	1	25	..	..	..	..	..	..	..	26
13	Greek Catholic..	..	..	2	..	..	..	..	17	..	..	..	..	..	..	19
13	Moravian.....	..	..	..	..	..	2	..	..	5	..	..	..	..	..	7
1	Mennonite.....	1	..	..	..	..	..	..	..	..	3	..	..	..	..	4
1	Evangelical R'd	1	..	..	..	..	..	1	..	..	..	2	1	..	..	5
..	Congregation'l't	1	1	..	1	4	3	1	..	..	..	..	..	..	..	11
51	Others.....	9	3	1	2	3	2	2	..	..	..	..	..	53	..	75
..	Not stated...	..	1	2	1	1	..	..	..	..	..	..	..	..	6	11
1,112	Total.....	233	185	207	144	74	119	30	20	11	3	2	3	74	7	1,112

MARRIAGES BY MONTHS.

Month	No.	Month	No.
January.....	93	July.....	88
February.....	108	August.....	82
March.....	79	September.....	92
April.....	72	October.....	72
May.....	92	November.....	117
June.....	112	December.....	105

MARRIAGES.—Origins of Contracting Parties.

BRIDEGROOMS		BRIDES												
		English speaking countries				Others								
		Canada	United Kingdom	United States	Total	German	Austrian	Scandinavian	French	Others	Total	Half Breeds	Indians	Total
Eng. speaking countries	Canada.....	241	43	84	368	6	...	1	...	8	15	...	...	383
	United Kingdom.....	66	118	27	211	4	2	2	...	1	9	...	...	220
	United States.....	41	12	167	220	2	3	3	1	3	12	...	...	232
	Total.....	348	173	278	779	12	5	6	1	12	36	...	...	835
Others	German.....	1	2	...	3	3	1	...	...	1	5	...	...	8
	Austrian.....	2	...	3	5	...	142	...	...	1	143	...	...	148
	Scandinavian.....	2	1	12	15	1	...	26	...	...	27	...	...	42
	French.....	1	...	...	1	...	...	...	1	...	1	...	...	2
	Others.....	6	4	4	14	1	2	5	...	39	47	...	...	61
	Total.....	12	7	19	38	5	145	31	1	41	223	...	...	261
Half-breeds.....		...	...	...	...	...	...	...	...	...	...	9	...	9
Indians.....		...	...	...	...	...	...	...	...	...	...	...	7	7
Total.....		360	180	297	837	17	150	37	2	53	259	9	7	1,112

MEAN MARRIAGE AGE.

YEAR	BRIDEGROOMS	BRIDES	YEAR	BRIDEGROOMS	BRIDES
1905	28.34	23.06	1902	27.10	22.88
1904	28.53	23.41	1901	28.78	22.82
1903	28.31	22.90	1900	29.87	23.86

DEATHS from Epidemic Diseases—1905.

CAUSE OF DEATH	Male	Female	Total
Diphtheria and Croup.....	14	13	27
Influenza.....	2	2	4
Measles.....	2	2	4
Scarlatina.....	15	6	21
Smallpox.....	...	...	...
Tuberculosis and Scrofula.....	44	43	87
Typhoid Fever.....	29	8	37
Whooping Cough.....	5	15	20
Other epidemic diseases.....	...	...	...
Deaths from epidemic diseases.....	111	89	200
Deaths from all causes.....	676	465	1,141
Deaths from epidemic diseases per 1,000 of all causes.....	164.20	191.39	175.28

VITAL STATISTICS.—Comparative statements.

Deaths of Infants (under 1 year.)—

To 1,000 births.....	1905.....	98.25
To 1,000 deaths from all causes.....	1905.....	305.87

Births of males to 1,000 births of females.....	1905.....	1,059
	1904.....	1,118
	1903.....	1,056
	1902.....	1,010
	1901.....	1,081
	1900.....	1,027

Ratio of births to deaths.....	1905.....	3.11
	1904.....	3.04
	1903.....	2.95
	1902.....	2.59
	1901.....	3.55
	1900.....	2.89

MORTUARY STATISTICS.—1905.

CAUSE OF DEATH	Sex		Born in					Age								Month																	
	Total	Certified by Doctor	Males		Females	Canada	United Kingdom	United States	Other Countries	Not stated	Age								January	February	March	April	May	June	July	August	September	October	November	December			
			1 to 5	5 to 15		15 to 25	25 to 35	35 to 45	45 to 65		65 and over																						
Number of column.....	1	2	3	4		5	6	7	8	9		10	11	12	13	14	15	16	17	18		19	20	21	22	23	24	25	26	27	28	29	30
GENERAL DISEASES.																																	
I.—COMMUNICABLE (Epidemic) Diseases.																																	
1. Typhoid Fever.....	37	33	29	8	14	8	5	10				1	3	17	8	5	3			7	2	2						1		5	8	9	3
2. Smallpox.....			2	2	3			1				1	1	1	1																	1	
3. Measles.....	4	2	2	6	16		1	4				3	12	6						3	3	5	1		3	4	1	1	1			1	
4. Scarlet Fever.....	21	7	15	6	20							18	2							1	1	5	2	2	3	2	2	1	1	2			
5. Whooping Cough.....	20	9	5	15	20							2	8	15	1	1				5	1	2	7	2	1	3	1					1	
6. Diphtheria and Croup.....	27	21	14	13	18		8	1				2								1	2											1	
7. Influenza.....	4		2	2	4							1	2																			1	
8. Other epidemic diseases.....																																	
Total.....	113	72	67	46	75	8	14	16			24	26	25	19	10	5	4			6	12	14	18	7	10	5	4	9	9	11	8		
II.—OTHER GENERAL DISEASES.																																	
1. Pyaemia and Septicaemia.....	12	12	7	5	7	2	2	1				2	1	2	2	2		1	3			2	1	2		3						1	
2. Malarial Fever.....																																	
3. Tuberculosis and Scrofula.....	87	71	44	43	55	8	10	13	1			3	3	8	26	22	18	6	1	5	6	5	10	7	11	10	8	7	6	9	3		
4. Syphilis.....																																	
5. Cancer.....	11	11	7	4	3	3	1	4									2	4	5				2	3	2	1	2	1	2			2	
6. Rheumatism and Gout.....	5	3	2	3	3	1												3	2		1											1	
7. Diabetes.....	3	3	2	1	1		2								1	1		1														1	
8. Other General Diseases.....	5	5	5	5		3	1											2	2		1											1	
9. Chronic Poisoning.....	5	5	5	5		3	1		1								1	2		1												4	
Total.....	128	110	72	56	70	20	18	18	2		5	4	10	28	27	25	17	12	9	8	6	14	11	17	11	14	10	6	12	10			

MORTUARY STATISTICS—Continued.

Number of column...	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
LOCAL DISEASES.																															
III.—DISEASES OF NERVOUS SYSTEM AND ORGANS OF SENSE.																															
1. Encephalitis	31	31	19	12	20	2	6	2	1	8	7	8	2	2	1	2	1	1	4	4	3	1	1	3	5	4	2	1	2		
2. Simple Meningitis	3	3	1	2	2	..	..	1	..	..	1	..	2	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	1	
3. Epidemic Cerebro-spinal Meningitis	21	19	11	10	8	7	1	5	..	1	..	1	3	..	9	7	1	3	2	1	3	2	1	1	1	1	1	1	4		
4. Congestion and Haemorrhage of the Brain	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
5. Softening of the Brain	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
6. Paralysis without specified cause	7	6	3	4	4	..	3	..	..	..	1	..	1	1	1	4	..	1	..	3	1	..	..	1	..	1	..	1	..	..
7. Insanity	1	1	1	..	..	..	1	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
8. Epilepsy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
9. Convulsions (not puerperal or infantile,)	4	3	2	2	1	2	..	1	..	..	1	1	1	1	1	1	..	..	..	..	..	1	1	1	1	1	1	1	1	1
10. Infantile Convulsions	25	16	14	11	24	1	..	..	..	20	5	..	..	..	..	..	3	2	3	2	1	5	1	4	2	1	1	1	1	1
11. Other Nervous Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total...	92	79	51	41	59	12	11	9	1	29	13	10	7	6	2	13	12	5	11	11	9	7	9	7	12	7	4	3	7		
V.—DISEASES OF THE CIRCULATORY SYSTEM.																															
1. Pericarditis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2. Endocarditis	8	8	5	3	2	4	1	1	..	..	1	3	..	1	3	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1
3. Organic Heart Disease	17	16	11	6	7	3	..	5	2	..	2	1	2	..	2	8	2	..	1	1	3	1	..	1	3	1	3	3	3	3	

MORTUARY STATISTICS, 1905—Continued.

Number of column. . .	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
VI.—DISEASES OF THE DIGESTIVE SYSTEM.																															
1. Diseases of the Pharynx.	8	6	6	2	6	...	1	1	...	1	3	1	...	...	...	1	2	...	...	...	1	...	1	...	2	1	...	1	...	1	...
2. Ulcer of the Stomach.	6	6	3	3	3	1	2	...	...	...	...	4	...	2	...	...	...	...	...	1	...	...	...	...	1	1	...	1	...	...	...
3. Other Diseases of the Stomach (Cancer excepted).	15	10	10	5	7	3	2	3	...	2	...	1	3	2	2	3	2	...	1	...	2	1	1	3	1	...	4	...	1	1	...
4. Infantile Diarrhoea and Gastro enteritis (Cholera Infantum).	74	58	36	38	68	4	...	2	...	52	22	...	...	...	...	...	...	...	1	1	...	3	...	3	4	29	25	3	2	3	...
5. Diarrhoea and Enteritis (not infantile).	5	5	4	1	4	...	1	...	...	...	...	1	2	1	...	...	1	...	...	...	...	...	...	...	...	...	3	1	1	...	...
6. Dysentery.	1	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...
7. Hernia and Intestinal obstructions.	6	6	1	5	4	1	1	1	...	2	...	...	...	1	1	2	...	...	...	1	...	...	...	...	...	1	...	...	3	1	...
8. Other Diseases of the Intestines.	8	8	7	1	2	4	2	...	...	...	...	1	...	4	2	1	...	...	...	...	...	...	1	...	...	1	2	3	...	1	...
9. Diseases of the Liver.	13	11	9	4	2	4	3	4	...	...	...	...	...	1	3	7	2	...	...	...	1	...	...	1	3	...	2	2	2	...	...
10. Peritonitis (not peral.)	19	18	14	5	9	2	4	4	...	...	2	1	3	8	3	1	1	...	3	1	2	2	2	1	1	1	2	1	2	...	2
11. Iliac abscess (typhlitis, perityphlitis, appendicitis.)	1	1	1	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Total	156	130	92	64	106	20	16	14	...	57	27	9	8	19	11	16	9	...	6	6	5	6	5	8	12	35	39	14	9	11	...
VII.—DISEASES OF THE GENITO URINARY SYSTEM.																															
1. Acute Nephritis.	11	11	7	4	6	2	2	1	...	...	1	3	1	1	...	1	4	...	2	1	1	...	...	1	1	2	...	1	1	1	...
2. Brights Disease.	14	14	12	2	4	6	...	3	1	...	1	...	1	2	8	1	...	...	...	...	3	5	...	...	...	2	1	2	1	...	...
3. Other Diseases of the Kidneys and its Adnexa	7	6	4	3	2	1	2	2	...	...	2	...	...	1	3	...	1	...	1	3	...	...	...	1	...	1	...	1	...	...	...

MORTUARY STATISTICS.—1905.—Continued.

Number of column.....	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
X.—DISEASES OF THE LOCOMOTOR SYSTEM.																															
1. Pott's Disease.....																															
2. Disease of Bones and Joints.....																															
3. Amputation (for unspecified disease).....	1		1			1							1												1						
4. Other Diseases of the Locomotive Organs.....																															
Total.....	1		1			1							1												1						
XI.—MALFORMATIONS, DISEASES OF INFANCY, DISEASES OF OLD AGE.																															
1. Still Births.....	29	26	19	10	29					29									1	4	3	4	2	4		1	4	4	1	1	
2. Congenital Debility and Malformations.....	94	69	57	37	92		2			91	3								4	16	4	8	10	7	1	19	10	6	4	5	
3. Other Diseases of Infancy.....	9	8	5	4	9					8	1								3	2	2	1					1				
4. Senile Decay.....	44	17	30	14	7	13	2	22								7	37		7	6	5	3	1	1	2	5	1	3	5	5	
Total.....	176	120	111	65	137	13	4	22		128	4					7	37		15	28	14	16	13	12	3	25	16	13	10	11	
XII.—SUICIDE.																															
1. Poison.....																															
2. Strangulation or Hanging.....	2	1	2					1	1						2							1					1				
3. Asphyxia.....																															
4. Drowning.....																															
5. Firearms.....																															
6. Cutting.....	1	1	1			1									1							1									
7. Other Methods.....																															
Total.....	3	2	3			1		1	1						3							1	1				1				

IX.—HOSPITALS.

Below will be found the usual statement with regard to the number of patients treated at the hospitals, their financial conditions and the grant made to them during the year:

HOSPITAL STATISTICS—1905.

NAME OF HOSPITAL	LOCATION	EXPENDITURE							REVENUE						LIABILITIES							
		Cost of Maintenance	Expended on Buildings	Expended on furnishings	Interest on loans & mortgages	Repayment of loans and mortgages	TOTAL		Proceeds of loans and mortgages	On hand Jan. 1, 1905	CONTRIBUTIONS		Pay patients	Outside nursing	TOTAL	Open accounts	Interest bearing notes in bank	Mortgages on real estate	Rate of interest	Total indebtedness Dec. 31,'05	Increase over 1904	Decrease over 1904
											Local including Govt. grants	From other sources and miscellaneous										
1 Calgary General.....	Calgary.....	\$ 14,349.70	\$ 3,937.21	\$ 3,621.29	\$ 848.25	\$ 4,550.00	\$ 27,206.45	1	\$ 2,350.00	\$ 1,245.11	\$ 11,023.66	\$ 1,572.13	\$ 11,506.84	\$ 114.25	\$ 27,811.99	.....	\$2,676.99	\$11,234.16	7%	\$13,911.15	\$.....	\$5,276.88
2 Edmonton General.....	Edmonton.....	5,079.34	871.50	410.54	871.06	2,004.53	9,240.00	2	.....	731.92	4,877.40	600.00	4,639.20	.....	10,848.52	.....	.....	19,256.00	...	19,256.00	.....	760.92
3 Edmonton Public.....	Edmonton.....	6,073.98	1,998.30	491.44	406.00	20,400.38	29,370.10	3	18,237.69	160.75	6,692.39	112.02	4,429.03	.....	29,571.88	.....	381.30	4,250.00	6%	4,631.30	.....	2,643.47
4 Galt.....	Lethbridge.....	10,558.15	2,709.67	1,184.00	.....	.....	14,451.82	4	.....	4,463.88	6,753.95	463.90	10,024.62	.....	21,706.35	.....	.....	.....	.....	.....	.....	.....
5 Holy Cross.....	Calgary.....	13,969.55	938.56	1,375.75	.....	1,000.00	17,283.86	5	.....	.....	6,984.32	300.00	10,185.05	.....	17,469.37	.....	.....	.....	.....	.....	.....	.....
6 Macleod General.....	Macleod.....	3,192.11	.....	13.07	28.75	6,690.00	9,923.93	6	5,962.70	418.31	1,448.75	111.50	1,371.30	.....	9,312.56	611.37	.....	.....	8%	611.37	611.37	.....
7 Medicine Hat General.....	Medicine Hat.....	11,235.88	4,046.13	1,672.58	629.75	12,700.00	30,284.34	7	13,920.60	960.51	8,196.96	355.75	6,689.44	87.00	30,209.66	74.68	2,127.31	8,000.00	6%	10,201.99	.....	2,059.54
8 Pincher Cr. Memorial.....	Pincher Creek.....	2,168.41	1,082.40	43.45	.....	.....	3,294.26	8	.....	503.81	966.70	.....	1,304.15	.....	3,174.66	119.60	.....	.....	...	119.60	119.60	.....
9 Red Deer Memorial.....	Red Deer.....	3,816.30	456.31	40.95	123.25	2,881.65	7,318.46	9	3,000.00	.....	1,922.40	468.00	2,278.38	.....	7,668.78	.....	4,120.00	.....	8%	4,120.09	.....	216.42
Province of Alberta	1905.....	70,343.42	16,010.08	8,853.07	2,910.06	50,226.59	148,373.22	'05	43,470.39	8,824.29	48,866.53	3,983.30	52,428.01	201.25	157,773.87	805.65	9,305.69	42,740.16	...	52,851.50	730.97	10,957.23
	1904.....	58,178.68	39,267.92	6,921.41	.....	.....	.....	'04	.....	9,418.81	52,578.57	6,328.24	41,946.50	142.50	.....	.....	.....	.....	.....	.....	.....	.....
	1903.....	46,087.21	15,208.05	5,573.58	.....	.....	.....	'03	.....	4,648.38	20,454.49	2,471.37	39,067.23	252.25	.....	.....	.....	.....	.....	.....	.....	.....
	1902.....	42,507.13	5,748.86	3,028.20	data	incomplete	.....	'02	.....	1,159.11	20,169.05	3,394.56	25,630.55	441.30	.....	.....	.....	.....	.....	.....	.....	.....
	1901.....	40,670.81	†145,668.24	†29,358.62	.....	.....	.....	'01	.....	2,500.37	22,191.04	2,103.90	23,360.93	714.15	.....	.....	data incomplete	.....	.....	.....	.....	.....

†Expended during 1901 and previous to that year.

During the year the hospitals were inspected by Dr. S. N. Kennedy, of Macleod. The following is his report as it bears upon the hospitals in the Province:

MACLEOD, February 16, 1905.

SIR,—I desire to call your attention to a few matters which have impressed themselves on me during my recent inspection, all of general interest and some possibly calling for action on the part of the Government.

There were 12 hospitals in the Territories at the date of my last inspection nearly two years ago. There are now 16 in all, besides one which is under way at Moose Jaw. The new ones being the Red Deer Memorial, The Lady Minto Hospital at Indian Head, the Battleford and the Maple Creek Hospitals. Of these neither the Maple Creek or the Indian Head institutions are yet on the schedule.

Besides these new hospitals, greatly increased accommodation has been provided at Medicine Hat and Calgary. In spite of this, however, I found that there was generally a congestion of patients at some points, notably at Regina, the Calgary General, the Edmonton Public, and at Moosomin. Furthermore, the continued growth of settlement is likely to make this condition of affairs a chronic one for some years at least.

Therefore, while it must be admitted that the people of the Territories have done nobly in the way of providing hospital accommodation for the sick and needy, it is evident that there will be a necessity of continued exertion on their part. This brings up the question of financing these institutions, and in this connection I may say that it does not appear to me exactly right that in any given community a few men should bear the total burden. The ordinary *modus operandi* when a hospital is projected is for the promoters or directors to collect subscriptions from the public sufficient to go ahead with, and the result when the hospital is built is that the Board find themselves with the debt more or less large. For instance, if the establishment of a hospital cost \$10,000 there will likely be a debt on it of at least one-half that amount, and this has to be secured by the personal guarantee of the directors. I think that the Government might reasonably entertain a suggestion that was made to me by the secretary of one of these institutions: That where the establishment of a hospital is approved by the Government, the Government should guarantee the bonds of the institution and thus relieve private parties of the indebtedness. In this way money could probably be procured at a lower rate of interest, and if such a system were in vogue hospital directors would build and equip better institutions in the first place, instead of struggling along with inferior buildings and insufficient equipment on account of lack of funds.

Either this plan or the authorization of the issue of debentures the same as by a school district, is, I think, worthy of consideration by the Government.

Another point which may call for action is the establishment of a standard which would entitle a hospital to be placed on the schedule for Government aid. I think it is probably time that this was done,

and, roughly speaking, I should say that any hospital entitled to such Government aid should have accommodation for at least eight (?) patients. It should also have an efficient water supply and proper facilities for the disposal of sewerage.

In my last report I alluded to the attempted establishment of training schools for nurses in connection with the smaller hospitals. I find that this system is being extended and I cannot too strongly protest against such extensions. Probationers or pupil nurses are now utilized in the Red Deer Memorial, in Regina, Indian Head, Moosomin, Prince Albert and Yorkton, and they are mainly in connection with the Victorian Order of Nurses. I said in my last report, "I consider it hardly necessary to go into my reasons for this opinion, but I made the statement that it is practically impossible to properly train nurses in a small hospital, and I would strongly advise the Department not to sanction the establishment of a training school in connection with any hospital of a smaller capacity than 50 beds." I still consider it hardly necessary to go into my reasons, but it will be found that this opinion is shared and confirmed by every practitioner who has had a reasonable amount of experience with nurses and hospitals. It is also shared by most matrons or lady superintendents of experience. I think the time is at hand for some simple legislation on the subject. It would be welcomed by the better class of nurses, the doctors would be in favour of it, and the public would be the gainer.

I have the honour to be, Sir,

Your obedient servant,

G. A. KENNEDY,

Inspector.

INCURABLES.

Arrangements were made by the Territorial Government for the Medicine Hat Hospital to care for all incurables and indigent patients, and at the time of the formation of the Province there were in that institution 2 patients from the Province of Alberta. This arrangement with the Medicine Hat Hospital has been continued and the charge for the patients from Alberta assumed by the Department.

CHARITY AND RELIEF.

At the formation of the Province assistance was being given to 2 females. These have been continued as a charge upon the fund at the disposal of the Province.

X.—DEPARTMENTAL STAFF.

The staff at the beginning consisted of the writer and two clerks and the work lay in systematizing and arranging the files and records forwarded from Regina and the planning of how the new work should be conducted. Reports were received from the various branches of the work and tabulated and everything arranged as far as possible for another season's campaign.

CONCLUSION.

In concluding this somewhat disjointed report of the work of Province for the last four months of 1905, I again call your attention to the fact that as most of the returns of the various organizations throughout the Province are forwarded at the close of the year it has been thought advisable to give statements covering the whole period of 1905.

Respectfully submitted,

GEO. HARCOURT,

Deputy Minister.

REPORT
OF THE
DEPARTMENT OF AGRICULTURE
1906

PART II.

REPORT OF THE DEPARTMENT OF AGRICULTURE FOR 1906.

DEPARTMENT OF AGRICULTURE,
EDMONTON, February 6th, 1907.

W. T. FINLAY, Esq.,
Minister of Agriculture.

SIR,—

I have the honour to herewith submit a report covering the work of the various branches of the Department of Agriculture for the year 1906.

You are quite well aware that the work during the year has been one largely of organization but just how extensive this has been will be more readily understood when it is known that the following branches were organized:

- Office of Dairy Commissioner, Calgary.
- Office of Chief Inspector of Noxious Weeds.
- Office of Chief Game Guardian.
- Office of Recorder of Brands, Medicine Hat.
- Office of Chief Stock Inspector, Calgary.
- Office of Superintendent of Fairs and Institutes.
- Public Health Branch.
- Statistical Branch.
- Poultry Branch.
- Fruit Experimental Stations.

The scope of the work undertaken by the Department will perhaps be more fully understood and appreciated when it is known that the Department has the administration of the following Ordinances:

1. Pound District Ordinance.
2. Stray Animals Ordinance.
3. Entire Animals Ordinance.
4. Stock Inspection Ordinance.
5. Herd Ordinance.
6. Horse Breeders' Ordinance.
7. Noxious Weeds Ordinance.
8. Fence Ordinance.
9. Threshers' Liens Ordinance.
10. Game Ordinance.
11. Useful Birds Ordinance.

12. Public Health Ordinance.
13. Hospitals Ordinance.
14. Agricultural Societies Ordinance.
15. Prairie Fires Ordinance.
16. Brand Ordinance.
17. Vital Statistics Ordinance.
18. Dairymen's Ordinance.
19. Ordinance for the Protection of Sheep and other Animals
from Dogs.
20. Veterinary Associations Act.

For convenience the report is divided into the following sections

- I. Live Stock.
- II. Crops.
- III. Educational work.
- IV. Transportation and Markets.
- V. Colonization and Immigration.
- VI. Noxious Weeds.
- VII. Game.
- VIII. Poultry.
- IX. Dairying.
- X. Brands.
- XI. Fruit Experimental Stations.
- XII. Public Health.
- XIII. Hospitals, Incurables and Charities.
- XIV. Vital Statistics.
- XV. Office Work and Organization.
- XVI. Appendices.

I.—LIVE STOCK.

The health of the live stock throughout the year was remarkably good. In the southern portion of the province, where during previous years mange had been more or less prevalent, the compulsory dipping measures adopted by the Federal Government proved so effective that in a very large measure the regulations were relaxed and only where animals were notably affected with mange was dipping required. The Veterinary Department of the Federal Government have also adopted vigorous measures looking to the suppression of glanders and *maladi du coit*. In the central portion of the Province a number of reports have reached the Department with reference to animals dying from blackleg. This disease has been more or less prevalent and seems to be on the increase. Information has come to the Department from several sources that the carcasses of animals dying from this disease are not burned or buried as they should be but are left lying on the surface of the ground. If such policy as this is continued it means a rapid spread of the disease and a serious loss of live stock.

Blackleg is not one of the diseases included under the Animals Contagious Diseases Act, under the provisions of which the Dominion Government essays to safeguard the health of the live stock of the Province. It will therefore be necessary at an early date for the Department to frame such legislation as will meet the requirements of the situation. A laboratory for the manufacture of blackleg vaccine has been established at Ottawa under the supervision of the Veterinary Director General with the object of supplying the vaccine to Canadian farmers at cost. All enquiries for vaccine should be addressed to Ottawa.

IMPROVEMENT OF LIVE STOCK.

Realizing that the breeders of the country lying along the Peace River were in need of new blood in connection with their herds, the Department arranged to assist them in the transportation of a number of pure bred bulls from Edmonton to Peace River. Owing, however, to the lateness at which this money was available, it was impossible, to take in any animals during the year. Arrangements, however, are under way whereby a number of breeders will take advantage of the Department's offer in this respect for the season of 1907.

BEEF COMMISSION.

During the year, acting in co-operation with the Provinces of British Columbia, Saskatchewan and Manitoba, a Beef Commission was appointed to enquire into all matters pertaining to the beef industry in the west and to see if some solution could be arrived at with regard to the general belief of the farmers and ranchers that prices were unduly depressed through a combine of the buyers.

A preliminary sitting of the Commission was held at Calgary, after which it adjourned to meet at Vancouver. In the meantime, however, the Province of British Columbia receded from the Commission, whereupon the Minister of Agriculture for the Province of Saskatchewan took a similar step. There the matter rests for the present, no definite arrangement for proceeding with the enquiry having been arrived at. It is hoped that in the interests of the live stock industry of the Province some solution of this difficulty will be arrived at very speedily.

HORSES.

During the year the demand for horses, especially of the heavier classes, has been exceedingly brisk. It is altogether likely that this demand will continue for years, at any rate as long as the tide of settlement continues as heavy as it has been the last few years. There is an especially good demand for horses suitable for dray purposes from all cities and towns. The heavy work incidental to pioneer life makes great drains upon the horse flesh of the country, consequently the demand arising from this, together with the demand for stock by new settlers, gives a very bright outlook to the horse breeding industry of the Province.

For particulars about the work of the Alberta Horse Breeders' Association see appendix.

CATTLE.

During the year the shipment of cattle from the ranges possibly reached the highest point it will see for many years. The last of the large shipments of stocker cattle of previous years were ready for the market. The season was a favourable one throughout and the fall saw an unusually large number of cattle ready for shipment. The number available was also increased by a considerable quantity of cattle that were turned back on the range the previous fall owing to unsatisfactory conditions. The railroads were, however, unable to provide cars for all the cattle and again a large number were turned back on the range. The early setting in of winter and the severity to date, together with the fact that those ranchers who were unable to ship in some cases were unprepared with feed to carry over such a large number will in all probability mean serious loss to the stock interests generally.

No apparent effort has been made for some years by the large ranchers to replenish their range. The eastern dairy bred stock proved most unsatisfactory and the improved conditions in the east made it impossible to secure this stock in any event. The increasing settlement of the land once devoted to range purposes, consequent upon its suitability for growing winter wheat, has been a factor in the restocking of the range. Another feature is the disinclination of the Federal Government to grant any extended leases in the old ranching country. As a result those ranchers who have only limited areas have been selling off their herds and disposing of their lands. Large herds have been moved north and east of the Red Deer River, while large numbers of heifers have been speyed and will go to the

market when ready. This all means a diminution in the number of cattle for shipment in the immediate future.

On the other hand the settlement of the land means that the number of cattle will gradually increase again and reach larger proportions than ever before. It is generally counted that it requires twenty acres of open range for each animal, or eight head per quarter section. It is an easy matter for a settler on a quarter section to keep as many head as the land would have supported under range conditions, and still grow a lot of grain. In the central portion of the Province winter feeding is being taken up and gradually this line of work will be adopted as better facilities for feeding are available. This will tend to spread the marketing of cattle over the whole year rather than to rush them all forward in the fall when prices are sure to be lowest.

For particulars about the work of the Alberta Cattle Breeders' Association see appendix.

SHEEP.

The sheep industry has not advanced as rapidly as it was hoped it would do. The market for lamb and mutton is exceptionally good and large quantities are continually imported to supply the demands of our population. In spite of this the sheep industry seems rather to have declined than advanced. One thing that has acted against its advancement has without doubt been the low price for the wool clip as compared with what the ranchers in the neighbouring state of Montana have been receiving. This difference for years amounted to between six and ten cents a pound and without doubt has had a deterring effect on those desirous of establishing a flock or of moving their flock over the boundary line from the crowded range to the south. Of recent years the wool market has been more remunerative and a number of new flocks have been established, as well as a few moved from south of the line. The in-rush of settlers, however, will have a deterring effect here again as well as with cattle.

Besides the above, the lack of shelter at the lambing season and consequent loss at times, together with the high price of lumber have had their influence in retarding the development of this industry. The depredations of coyotes and wolves has been another serious consideration. Numerous complaints of heavy losses from this cause have reached the Department. While the climatic conditions are favourable for the rapid development of the industry, it would look as though little would be done to increase the sheep stock of the country until farmers go in for keeping small flocks. At present, while apparently highly remunerative, the necessity for keeping a herder with the flock during the daytime to guard against coyotes makes it impracticable to keep a small band until such times as the country is more closely settled and the ravages of coyotes less manifest.

SWINE.

Owing to the scarcity of hogs, prices have been much higher than in previous years, yet there is nothing like a sufficient number

raised. With an abundance of coarse feed there is no reason why hog raising should not be a very profitable industry. During the last year or so farmers have raised fewer hogs than formerly owing to the fact that they considered the prices offered were much too low and consequently it did not pay them to raise hogs. Many farmers can see no profit in raising hogs under four cents a pound live weight. It may be a wise move to reduce production when prices are low, but it should not be carried to an extreme. There is no industry which fluctuates as much as the hog industry and just on account of this rushing out of the business when prices do not suit and into it again when prices are better. This out and in business only lands a man into the worst of it because he will always be out of hogs when the market is highest. By far the best plan is to keep steady at it, producing as large a number of hogs each year as his circumstances will permit. He will then always have a full quota to sell when prices are highest and his average through the course of years will be satisfactory. By watching the trend of the market he may be able to reduce his breeding operations slightly when hogs are high in anticipation of a decline of the market and increase his breeding when prices are low in anticipation of higher values, which are sure to follow where the great majority of farmers drop out because of low prices; or, in other words, endeavour to work the opposite way to that which most farmers are following.

Owing to the most unsatisfactory state of the hog markets and the feeling that the packers have been taking an undue profit, the farmers have abandoned hog raising on a large scale. It is generally felt that the packers are unfair in making the price at Winnipeg the basis for payment here. The packer gains the freight to Winnipeg on the live animal, which the farmer loses, and also the cost of the freight on the dressed article from Winnipeg, which the consumer pays. He thus has two profits which his manipulation of the market gives him, besides any legitimate profit which he is entitled to. So great has been the dissatisfaction along these lines that farmers, realizing the success which has been obtained through co-operation in connection with creameries, have made frequent and determined requests for the establishment of Government controlled pork packing plants, operated on lines similar to those of the creameries. In view of the fact that a Commission to enquire into the meat industry of the Province has been appointed, no definite action has been reached with regard to these requests.

ENROLMENT OF STALLIONS.

During the early part of the season inquiries were sent out in all directions asking for names of owners of stallions. These were tabulated and every stallion owner in the Province notified of the provisions of the Horse Breeders' Ordinance. As a result 491 stallions were enrolled as per the following statement

BREED	NUMBER ENROLLED.
Clydesdale.....	81
Percherons.....	35
Shire.....	10
Standard Bred.....	10
Hackney.....	2
Thoroughbred.....	10
Suffolk Punch.....	3
French Coach.....	2
Belgian.....	2
French Draft.....	5
Cleveland Bay.....	1
French Canadian.....	1
Total Pure Bred.....	162
Grades.....	329
Total Enrolment	<u>491</u>

The statement that of the stallions enrolled only 162 were pure bred and 329 grade animals is of grave import to the horse industry of the Province. Either the pure bred stallions are being held for private service or by far the larger number of stallions in the Province standing for public service are grade animals. It is scarcely necessary to point out what the result of such a style of breeding will be. In a country so excellently adapted to raising horses of a very superior quality the greatest care should be exercised to use none but the best sires. When, in addition to this, it is remembered that enterprising stallion owners have been forming syndicates and selling second and third rate horses at high prices, that most of these horses have some hereditary unsoundness, and that on account of their excessively high condition many of them prove non-breeders during the first season, it does not take anyone of very bright intelligence to forecast the future of the horse breeding industry.

PREMIUM HORSE SOCIETIES.

In order to improve this situation and introduce a superior method of hiring stallions the Department secured the services of Mr. Bryce Wright, of DeWinton, to address farmers' institute meetings throughout the Province upon the Scottish system of hiring stallions. The principle of this system is that a number of farmers form a society and pledge themselves to breed a certain number of mares to the horse chosen by the society. A small membership fee is collected from each member which, together with any other donations that may be secured, forms a premium to be paid to the stallion owner upon the signing of a contract. The amount of this premium is sufficient to meet the expenses of the groom and care of stallion during the breeding season. A committee of five are usually chosen to select a stallion. After selecting a horse the stallion owner is offered the premium for the use of his horse for the season and is also pledged the number of mares signed for by the various members of the society at a moderate rate for each foal secured. The number is usually in the neighbourhood of 80. As a rule the owner of a stallion chosen by the committee from such society is quite willing to accept the offer made because he secures a definite season's business

for his horse and runs no risk through having an unprofitable season. This system of hiring stallions worked so successfully in Scotland that it is practically the only system followed because the breeders of any one section can secure the services of the horse of their choice and not have to buy him.

The result of Mr. Wright's talks was that two horse societies were formed in the Province, one at Jackville and the other at Bowden. In order to assist the formation of these societies the Department made each a small grant. Recently Mr. Wright had a meeting with the members of these societies and found both of them so well pleased with the system that whether the Government gives any assistance or not it is their intention to continue securing the services of a stallion on the premium plan this season.

Baver Dam Horse Breeders' Association.

The headquarters of this Association is at Jackville. The Association contains 16 members with 80 mares pledged, from 70 to 75 of which proved in foal. At a meeting of the Association held at Jackville, the following resolutions were passed:

Moved by Mr. Geo. Murton, seconded by Mr. J. Briggs, That this meeting approve of the system of hiring stallions by the premium system; of the Government giving assistance to the system to get it established in the Province for the following reasons:

1. It gives encouragement to the raising of pure bred stock to secure premiums;
2. It assures the raising of a better class of stock;
3. It encourages importers to bring in a better class of horses to secure premiums;
4. Districts should be able to secure the services of a horse of higher quality than anyone would care to purchase;
5. It insures districts against having poor horses forced on them as in syndicate systems.

Bowden Horse Breeding Association.

At a meeting held by the members of the Bowden Horse Breeding Association the resolutions given below were passed. This society has 37 members and 80 mares were pledged, 65% proving in foal.

The resolutions are as follows:

Moved by Mr. Grant, seconded by Mr. W. C. Ramsay, That this meeting approve of premium system of hiring stallions.

Moved by Mr. Ramsay, seconded by W. Graham, approved, That the Government be asked to assist this system to have it established for the following reasons:

1. It encourages the raising of pure bred stock;
2. It encourages the raising of a better class of stock;
3. It encourages importers to bring in a better class of stallions;

4. Districts could by this system secure the services of a more valuable stallion;
5. It encourages breeding along one line;
6. It helps to do away with breeding to grade stallions;
7. Insures against having poor stallions forced on a district as five members will be more likely to make a better selection than would one individual.

In view of the results attained by these two premium horse societies the Department is encouraged to think that a great improvement could be effected in the horse breeding industry were some inducement offered to breeders to take up the premium system.

It might be possible to arrange that some measure of assistance be given to the first two premium horse societies formed in each electoral district, the amount of assistance to be not more than \$1.00 for each mare. It might be well to stipulate that these societies be not closer together than 15 miles apart. The object of giving any assistance would be largely an educative one because by having two societies formed in each electoral division it would not be long before the principles of the system were known throughout the district.

On account of the large number of unsound horses in the Province, it would be advisable to insert a provision that the stallion secured by any society receiving aid must be free from any hereditary unsoundness. In this way encouragement would be given not only to the forming of the society but to the breeding of sound horses. The importers would soon be encouraged to import nothing but the very best horses because they would be able to secure a definite season's business for them.

The amount of money required for such a scheme would not be a large one to devote to the encouragement of such an important industry. It might be necessary to continue it a second year, possibly a third.

STOCK INSPECTION.

With the increased facilities for shipping live stock occasioned by the construction of new railway lines in the Province it has been necessary to appoint quite a number of new stock inspectors. At the same time it was realized that many of the local stock inspectors were not able to make as thorough an inspection as is desirable when animals are being shipped, particularly for export, and that many of the butchers throughout the Province were not keeping a record of the brands on the animals slaughtered by them as is required by the Stock Inspection Ordinance. It was decided, therefore, to appoint a chief stock inspector, whose business it would be to visit all the local inspectors, instruct them in their work and see that the butchers were keeping the necessary records. Mr. Carl J. Cresswell, the local stock inspector at Calgary, was chosen for this service and his work has been productive of much good. Under his supervision all the butchers in the Province are now keeping accurate records of the hides of the animals they have killed. At first the butchers demurred but as they became accustomed to keeping their records

they soon found them of inestimable value to themselves. These books are open for the inspection of the public.

Owing to the large increase in the number of animals shipped to and from Calgary and the number slaughtered in the abattoirs at that point, it was decided that it would be in the interests of the public good to have a permanent stock inspector appointed at Calgary who would devote the whole of his time to the inspection of stock being shipped in and out and slaughtered in the abattoirs. The first appointee to this position was Wm. Metcalf, but I regret to report that during the month of September he was taken down with typhoid and later succumbed to the disease. His successor is Mr. A. Fleming, of High River.

According to the C. P. R. Live Stock Agent, Mr. H. C. McMullen, Calgary, that company shipped 16,880 horses and 94,668 cattle during the year 1906. This, it will be noticed, is more than the total reported by the various stock inspectors. The difference is readily accounted for by the fact that some of the stock inspectors were appointed late in the year and that consequently full returns were not received from these points. Owing to the uncertainty of all reports reaching the Department from the various inspectors on account of the returns being on loose leaves, a bound book of forms was devised for use by the inspectors which will in a large measure reduce the liability of any of these returns being lost or mislaid.

The following table will show in detail the results of the inspection of cattle and horses shipped from stations in this Province.

STOCK STATISTICS FOR ALBERTA—1906.

SHIPPING POINTS	INSPECTORS	EXPORTS				LOCAL SHIPMENTS		TOTAL	
		EAST		WEST		Cattle	Horses	Cattle	Horses
		Cattle	Horses	Cattle	Horses				
Airdrie.....	W. A. Downie.....	247	82	...	...	...	21	247	103
Alix.....	Horace Hitchling.....	302	...	...	...	113	1	415	1
Brooks Station.....	E. M. Crookers.....	5,364	41	7	15	137	178	5,708	234
Calgary.....	C. J. Creswell.....	1,928	700	2,812	264	197	1,207	4,937	2,171
Carlston.....	Frank Austin.....	1,084	132	...	...	80	10	1,164	142
Carstairs.....	Robt. Scott.....	486	...	16	...	78	16	580	16
Clareholm.....	G. Sharples.....	...	...	...	14	...	...	...	30
Cochrane.....	W. B. Elliott.....	1,027	89	263	28	128	20	1,418	137
Coutts.....	H. Tennant.....	194	47	...	...	...	126	194	173
Crossfield.....	Wm. Urquart.....	551	...	123	...	7	6	681	6
Didsbury.....	J. E. Liseemer.....	200	16	592	6	119	10	911	32
Edmonton.....	W. R. Howsey.....	25	...	...	...	...	...	25	...
Fort Saskatchewan.....	G. G. Montgomery.....	...	1	...	...	138	6	138	7
Gleichen.....	J. J. Marshall.....	6,547	143	...	...	124	219	6,671	362
High River and Cayley.....	Jno. Kent.....	5,016	39	224	9	69	70	5,309	118
Innisfail.....	W. Lundy.....	517	6	450	3	301	55	1,268	64
Irvine.....	Carl Benny.....	209	307	...	...	100	...	309	307
Lacombe.....	J. W. Burdeck.....	1,739	73	132	52	709	174	2,580	299
Leduc.....	J. L. Johnston.....	19	...	14	...	168	65	201	65
Lethbridge.....	G. Fraser.....	11,105	1,089	27	131	664	230	11,796	1,450
Macleod.....	R. G. Mathews.....	5,553	249	824	114	1,073	1,778	7,450	2,141
Medicine Hat.....	J. H. G. Bray.....	11,530	2,992	21	108	264	272	11,815	3,372
Morley.....	D. McDougall.....	42	...	57	2	...	67	99	69
Nanton.....	H. M. Shaw.....	...	54	6	12	...	58	38	124
Okotoks.....	Geo. C. Patterson.....	297	28	174	130	155	150	626	308
Olds.....	Wm. Dean.....	836	...	515	83	405	42	1,756	125
Pincher Creek.....	C. B. Bolster.....	1,507	174	1,240	199	555	310	3,302	683
Ponoka.....	A. Reid.....	128	5	185	...	257	10	570	15
Red Deer.....	Arthur B. Nash.....	152	14	342	3	275	106	769	123
Stettler.....	Benj. Phillips.....	1,015	3	70	10	135	50	1,220	53
Strathcona.....	J. C. Wainwright.....	55	126	20	21	245	291	320	438
Strathmore.....	Jas. Gordon.....	12,057	38	791	...	19	3	12,867	41
Vegreville.....	M. G. Connelly.....	102	...	...	...	171	7	273	7
Vermilion.....	M. Y. Brinscomb.....	...	...	...	...	1	...	1	...
Walsh.....	L. Sinclair.....	2,709	5	...	...	...	10	2,709	15
Wetaskiwin.....	P. A. Miquelon.....	1,146	16	36	...	1,679	45	2,861	61
		73,889	6,469	8,941	1,204	8,398	5,629	91,228	13,302

ANIMALS RUNNING AT LARGE.

At the first session of Parliament the Stray Animals Ordinance was amended by reducing the length of time which the finder should keep an animal after advertising it in the Official Gazette from six to two months. Provision was also made for an allowance for the keep of horses north of Township 28.

During the year two hundred and eighty-three head of cattle, two hundred and thirty-six horses, two pigs, thirty-one bulls and nineteen stallions were reported to the Department and duly advertised in the supplement to the Official Gazette in accordance with the provisions of the Stray and Entire Animals Ordinances. All of these animals were recovered by their owners with the exception of sixteen cattle, thirty-five horses, one pig, three bulls and seven stallions. These were sold by justices of the peace and after necessary expenses were deducted the balance of the proceeds forwarded to the Department, where the sum sent in is held in trust for one year before being deposited to the revenue of the Province.

The following is a statement showing the details of all sales of the animals captured under the Stray and Entire Animals Ordinances.

SALES OF ANIMALS UNDER THE STRAY ANIMALS ORDINANCE 1906.

JUSTICE	Address	CLASS OF ANIMAL	Date of Capture	First Gazette Notice	Date of Sale	Remitted to Dept
Chas. B. Phillips.	Asker	Steer, roan, one year old, unbranded	Oct. 1, 1905	Jan. 31, 1906	Aug. 10, 1906	\$ 70
John McKenty	Lacombe	Mare, sorrel, branded P on left shoulder.	May 10, 1906	Aug. 15, 1906	Oct. 23, 1906	20 79
"	"	Gelding, bay, lame on right fore foot	May 10, 1906	Aug. 15, 1906	Oct. 23, 1906	2 27
"	"	Steer, red, horned, no marks or brands.	Apr. , 1904	Apr. 30, 1906	Dec. 8, 1906	8 74
"	"	Heifer, dark red with long horns, branded W, reversed J on right hip	Apr. , 1904	Apr. 30, 1906	Dec. 8, 1906	4 12
"	"	Calf, red, no marks or brands	Apr. , 1904	Apr. 30, 1906	Dec. 8, 1906	4 35
Wm. Campbell	Vermilion Valley.	Horse, sorrel with white mane and tail, unbranded and	Apr. , 1904	Apr. 30, 1906	Dec. 8, 1906	72 50
"	"	Colt, brown, about nine months old, with white strip between nostrils.	July , 1905	Aug. 30, 1905	Mar. 9, 1906	40 10
R. G. MacDonnell.	Macleod.	Mare, bay, black points, branded C on right jaw	June 15, 1905	July 30, 1905	Feb. 28, 1906	3 36
A. C. Hare	Earlville.	Mare, aged, branded cross on left thigh	May , 1905	June 15, 1905	Dec. 28, 1905	10 90
Fred M. Rodgers.	Innisfail	Steer, red, about four years old, unbranded	Oct. 15, 1903	Apr. 30, 1904	Feb. 12, 1906	36 55
David Mitchell	Innisfail	Pony, mare, with foal, bay, no visible brand	Apr. , 1905	Feb. 15, 1906	Oct. 26, 1906	60 00
P. C. H. Primrose.	Macleod	Mare, gray.	June 1, 1904	June 15, 1905	Aug. 9, 1906	32 50
"	"	Cow with calf, red and white	Nov. 4, 1903	June 15, 1905	Aug. 9, 1906	10 60
David H. Elton.	Carlston.	Horse, grey, brand resembling angled lazy S on left thigh	Apr. , 1905	Apr. 15, 1905	July 15, 1906	68 60
David H. Elton.	Cardston.	Horse, brown, branded TS on left thigh and TS on left shoulder	Apr. 6, 1905	Apr. 15, 1905	July 15, 1906	12 28
Wm. H. Shaw.	Sunny Slope.	Cow, white face and legs, unbranded.	Nov. , 1905	Jan. 15, 1906	July 8, 1906	15 36
"	"	Gelding, cayuse, bay, white face and hind feet, unbranded.	Mar. 15, 1906	Apr. 30, 1906	Nov. 13, 1906	16 82
"	"	Gelding, cayuse, light bay, unbranded, seven years old	Mar. 15, 1906	Apr. 30, 1906	Nov. 13, 1906	11 46
"	"	Pony, mare, bay, four years old, unbranded	Mar. 15, 1906	Apr. 30, 1906	Nov. 13, 1906	13 41
Henry D. Mills	Wetaskiwin	Pony, gelding, iron grey, four years old, unbranded.	Mar. 15, 1906	Apr. 30, 1906	Nov. 13, 1906	5 10
"	"	Heifer, red and white, two years old, unbranded	Nov. 1, 1905	Dec. 15, 1905	May 25, 1906	3 45
"	"	Heifer, red and white, unbranded	Nov. 1, 1905	Jan. 31, 1905	May 25, 1905	18 35
Chas. H. Hotchkiss	"	Steer, black and white.	Jan. , 1905	July 30, 1906	Oct. 27, 1906	16 59
"	Clareholm.	Mare, sorrel, seven years old, branded VT monogram	Nov. , 1905	Nov. 30, 1905	May 23, 1906	30 41
"	"	Sow, six months old	May 26, 1906	July 14, 1906	Sept. 24, 1906	43 90
"	"	Steer, three years old, branded C5 half circle over on left flank	May, , 1904	July 14, 1906	Sept. 24, 1906	119 55
A. E. C. Green	Youngstown.	Gelding, bay, four years old, branded BT on right hip	Oct. , 1904	July 15, 1905	Apr. 12, 1906	23 30
Edward Lingham.	Camrose	Gelding, bay, six years old, branded reversed E monogram on right shoulder	Dec. 1, 1905	Dec. 15, 1905	June 27, 1906	103 45
H. B. Atkins.	Didsbury	Mare, bay, white mark on face, three white feet, branded AB on right hip	July 2, 1905	July 15, 1905	Feb. 28, 1906	11 00
Arthur Duffus.	Calgary.	Six pony mares, branded Y reversed Y connected on right shoulder.	Mar. 1, 1905	Dec. 16, 1905	Feb. 3, 1906	
"	"	Steer, spotted, two years old, branded lazy V on right ribs	June 12, 1904	June 30, 1905	Jan. 12, 1906	

Arthur Duffus.....	Calgary.....	Steer, black, two years old, branded on left ribs, LCV.	Nov. 1904	June 30, 1905	Jan. 12, 1906	\$11.00
E. L. Tynner..	Carstairs.....	Steer, red, one year old, left horn broken, unbranded.	Oct. 28, 1904	Feb. 29, 1905	Feb. 21, 1906	5.40
G. S. Worsley.....	Edmonton.....	Gelding, bay, branded H inside of square on left shoulder.	Sept. 1, 1904	May 15, 1905	Dec. 6, 1906	45.61
W. B. Thorne.....	High River.....	Cayuse, bay, no visible brand.	Nov. 18, 1905	Dec. 15, 1905	Feb. 26, 1906	9.54
W. E. G. Holmes.....	High River.....	Gelding, bay, three years old, no brand or marks.	May 1, 1904	July 15, 1904	May 14, 1906	44.48
J. S. McDonald.....	Heather Brae.....	Mare, small pony, branded E9 bar under on left shoulder and CP on right thigh, foal at foot.	June 1, 1905	Dec. 15, 1905	Sept. 18, 1906	36.68
C. D. Algar.....	Ponoka.....	Horse, grey, branded R on left shoulder, legs scarred by wire.	June 1, 1905	Aug. 31, 1905	Mar. 30, 1906	51.50
C. L. Peterson.....	Didsbury.....	Mare, black pony, large white star and white legs, no visible brand.	Oct. 20, 1905	Dec. 15, 1905	June 28, 1906	37.23
"	"	Buckskin pony, branded C 5 quarter circle over on right shoulder.	June 1, 1905	June 15, 1906	Dec. 17, 1906	29.33
Percy B. Gregson.....	Blackfalds.....	Mare, roan, cayuse, pony, branded 15 on left flank.	June 30, 1905	July 27, 1905	Feb. 9, 1906	20.95
A. P. Patrick.....	Calgary.....	Mare, chestnut, white face, no visible brand.	July 12, 1906	Aug. 15, 1906	Dec. 17, 1906	13.98
"	"	Entire colt, chestnut, white hind foot and white face.	July 12, 1906	Aug. 15, 1906	Dec. 17, 1906	3.22
A. W. Tod.....	Mannville.....	Steer, four years old, red and white, brand resembles X6N on left ribs.	Dec. 1, 1904	Dec. 15, 1905	Nov. 30, 1906	2.25
W. A. Chisholm.....	Nanton.....	Mare, brown, two years old, unbranded.	May 1, 1906	May 31, 1906	Nov. 10, 1906	28.50
H. D. Mills.....	Wetaskiwin.....	Steer, two years old, branded 5 inverted script T quarter diamond over.	Apr. 25, 1906	Sept. 29, 1906	Dec. 11, 1906	7.77

SALES OF ANIMALS UNDER THE ENTIRE ANIMALS ORDINANCE 1906.

JUSTICE	Address	CLASS OF ANIMAL	Date of Capture	First Gazette Notice	Date of Sale	Remitted to Dept
Wm. Dean...	Olds.....	Bull, red, two years old, no visible brand.	Jan. 1906	June 15, 1906	July 18, 1906	
Wm. H. Shaw..	Sunny Slope.....	Stallion, gray, cayuse, four years old, branded JE monogram on right shoulder.	July 1, 1905	Aug. 1, 1905	June 25, 1906	\$4.78
P. Rochon.....	Shepard.....	Bull, red, four white feet, no visible brand.	Apr. 9, 1906	Apr. 30, 1906	July 18, 1906	
Z. W. Jacobs..	Magrath.....	Stallion, light bay, branded round topped TU on right thigh.	May 9, 1906	May 15, 1906	June 13, 1906	34.00
Henry D. Mills.	Wetaskiwin.....	Stallion, dark brown, with white strip on face, no visible brand.	May 1906	May 31, 1906	July 9, 1906	11.65
W. L. Hamilton ..	Taber.....	Stallion, gray, three years old, indistinct brand on left shoulder.	Mar. 1906	Mar. 31, 1906	Apr. 13, 1906	7.25
Charles Wilson.....	Penhold.....	Stallion, grey, two years old, no visible brand.	Feb. 13, 1906	Feb. 28, 1906	Apr. 23, 1906	.60
Arthur Duffus.....	Calgary.....	Stallion, two or three years old, branded NH on left shoulder.	July 1906	July 31, 1906	Aug. 31, 1906	6.55
A. P. Patrick.....	Calgary.....	Stallion, chestnut, white face, one year old, unbranded.	July 26, 1906	Aug. 15, 1906	Dec. 17, 1906	
Raymond A. Kembry	Harmattan.....	Bull, white, unbranded, two years old.	May 1905	Feb. 15, 1906	Dec. 10, 1906	2.50

POUND DISTRICTS.

The provisions of The Pound District Ordinance do not seem to be fully understood by the public generally or there would be more districts formed. There seems to be a general impression that this Ordinance is intended for a district in which the land is fenced and the Herd District Ordinance for open land, particularly prairie districts. This impression is not well founded as the Pound District Ordinance does not require land to be fenced before it can be brought under the operation of this Ordinance. The only reference to fencing is found in one clause which provides that, before damages for trespass by an animal can be assessed upon that animal when impounded the land so trespassed upon shall be surrounded by a lawful fence. Where there is no fence a trespassing animal can only be placed in pound and the damages collected by suit.

Many applications have been made to the Department for the formation of herd districts in order to do away with stock running at large. In practically all of these cases the creation of a pound district would have served the same purpose.

At the close of the year 1906 the following areas had been set apart as pound districts under the Pound District Ordinance, in addition to those formed under the Village and Municipal Ordinances:

No. 1.—Sections 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 15, 16, 17 and 18 in township 7, range 20; sections 1, 2, 3, 10, 11, 12, 13, 14 and 15 in township 7, range 21; township 6, range 20, with the exception of sections 14, 24, 25, 26, 35 and 36; sections 1, 2, 3, 4, 9, 10, 11, 12, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35 and 36 in township 6, range 21; township 5, range 20; also the east half of township 5, range 21, all west of the fourth meridian. Poundkeeper, J. B. Wasden, Raymond, Alberta.

No. 2.—Sections 6, 7, 18, 19, 30 and 31, township 35, range 26; sections 6, 7, 18, township 56, range 26; fractional sections 31, 32, 33, 34, 35, 36, township 54, range 27, north of the Sturgeon River; township 55, range 27; and fractional sections 1, 12, 13, township 56, range 27, all west of the fourth meridian. No poundkeeper appointed since 1905.

No. 3.—Sections 1, 2, 3, 4, 5, 8, 9, 10, 11 and 12 and the south half of sections 13, 14, 15, 16 and 17, township 55, range 26; the north half of sections 31, 32, 33, 34 and 35, township 54, range 26, all west of the fourth meridian. Poundkeeper, Angus McDonnell, Ray, Alberta. Pound on the south-east quarter of section 3, township 55, range 26, west of the fourth meridian.

The following sales were made during the year under the provisions of the Pound District Ordinance:

DEPARTMENT OF AGRICULTURE

SALES OF ANIMALS UNDER THE POUND DISTRICT ORDINANCE 1906.

JUSTICE	ADDRESS	CLASS OF ANIMAL	First Gazette Notice	Date of Sale	Remit- ted to Dept
J. B. Warden.	Raymond.	Horse, branded lazy ML monogram on right shoulder	July 14, 1906	Aug. 11, 1906	\$.60
"	"	Horse, branded NJ monogram on left shoulder	July 14, 1906	Aug. 11, 1906	8.33
"	"	Horse, brown, blind in left eye, branded arbitrary brand and heart on left shoulder.	Sept. 15, 1906	Oct. 13, 1906	28.00
"	"	Mare, bay, branded lazy K on left shoulder.	Oct. 15, 1906	Nov. 13, 1906	22.30
"	"	Gelding, one year old, branded bar over O on right shoulder.	Sept. 30, 1906	Oct. 27, 1906	13.46
"	"	Mare, bay, spot on face, branded reversed DV over CX on left shoulder	Sept. 30, 1906	Oct. 27, 1906	48.15
"	"	Mare, light, iron grey or blue, branded O over 4 on left shoulder.	Sept. 30, 1906	Oct. 27, 1906	34.91
"	"	Mare and foal, brown, white on nose, no other marks or brands.	Sept. 30, 1906	Oct. 27, 1906	25.17
"	"	Mare, branded with arbitrary brand on right shoulder, hind feet white.	Sept. 30, 1906	Oct. 27, 1906	68.06
"	"	Mare, black, blotched brand on left shoulder.	Nov. 30, 1906	Dec. 20, 1906	6.57
"	"	Horse, bay, saddle, branded bar over O on left shoulder.	Nov. 30, 1906	Dec. 20, 1906	6.08
"	"	Mare, grey, blotched brand on left high and left shoulder.	Nov. 30, 1906	Dec. 20, 1906	36.30
"	"	Mare, brown, branded O on left ribs, foal at foot.	Nov. 30, 1906	Dec. 20, 1906	56.60
"	"	Horse, bay, one year old, branded T on right shoulder.	Nov. 30, 1906	Dec. 20, 1906	17.39

HERD DISTRICTS.

In an open country where timber for fencing is not to be had a law requiring all animals to be kept under control is a boon to the homesteader as it enables him to break and crop his land without going to the expense of fencing it.

The Herd District Ordinance was devised to meet this situation. Under its provisions districts can be formed in which animals shall not run at large during the season that crops are growing.

The Herd District Ordinance passed by the Territorial Legislative Assembly only provides for the formation of herd districts in that portion of the Province formerly in the Territorial district of Saskatchewan, *i.e.*, a district north of the division line between townships 34 and 35 and as far west as the line dividing ranges 10 and 11. It is only in this district, therefore, that new districts can be organized as no amendment has been made to this Ordinance since the Province was inaugurated.

Practically all the essential points of protection given by this Ordinance can, however, be obtained under the Pound District Ordinance which is in force in all portions of the Province.

The following district has been constituted under the provisions of the Ordinance:

Range 1, townships 49, 50, 51, 52, and that portion of township 53 lying south of the north Saskatchewan River.

Range 2, townships 49, 50, 52, 53, and that portion of township 54 lying south of the north Saskatchewan River.

Range 3, townships 51, 52, 53, and those portions of townships 54 and 55 lying south of the north Saskatchewan River, all west of the fourth meridian. Poundkeeper, Wm. Rendell, Lloydminster.

BULL DISTRICTS.

Under the provisions of clause 2 of section 4 of the Entire Animals Ordinance the following districts were set aside by the Territorial Department of Agriculture and no change has been made in these districts during the year:

District No. 1.—All that portion of the Province lying south of township 34.

District No. 2.—All that portion of the Province north of township 33, east of range 11, west of the fourth meridian.

District No. 3.—Townships 39, 40 and 41 in ranges 26 and 27, west of the fourth meridian.

District No. 4.—Townships 51, 52 and 53 in range 17, west of the fourth meridian.

II.—CROPS.

WEATHER CONDITIONS AND STATISTICS.

The supervision of the voluntary Meteorological Service in the Province started by the Territorial Department has been continued under the direction of the Dominion Meteorological Office at Toronto. During the year a number of new observers were appointed and the following is a complete list of all stations in operation in 1906.

METEOROLOGICAL STATIONS IN OPERATION, 1906.

STATION	Lat. N.	Long. W.	Altitude in ft ab'v sea level	NAME OF OBSERVER
Athabasca Landing.....	54.43	113.17	1650	A. G. Reeve
Alix.....	52.28	113.10	2870	Arthur F. Wright
Banff.....	51.10	115.35	4524	N. B. Sanson
Blackfalds.....	52.24	113.46	2876	G. L. Gregson
Bon Accord.....	54.5	113.32	2100	Jno. Schofield
Bruderheim.....	.....	.....	.....	Rev. Chas. A. Albrecht
Beaver Hills, W.....	.....	.....	.....	Rev. C. Hoyler
Bardo.....	.....	.....	.....	J. N. Jevning
Bismark.....	.....	.....	.....	Henry Nagel
Bittern Lake.....	.....	.....	.....	C. E. Roper
Calgary.....	51.2	114.2	3389	T. B. Bradin
Calgary (Ex. Stn.).....	50.58	114.1	3400	P. Turner Bone
Clover Bar.....	.....	.....	.....	Jas. Drisdale
Conjuring Creek.....	.....	.....	.....	J. A. Sangster
Cardston.....	49.12	113.18	.....	Martin Woolf
Didsbury.....	51.40	114.9	3300	C. L. Peterson
Dorenee.....	.....	.....	.....	C. Nixon
Edmonton.....	53.33	113.30	2158	H. S. Young
Fort Vermilion.....	58.29	116.3	950	.....
Fort Dunvegan.....	55.56	119.2	1302	F. J. H. Bedstow
Gray Hill.....	52.15	113.30	2795	Robert Gray
Gleichen.....	50.52	112.54	2952	Rev. Canon Stocken
Grassy Lake.....	.....	.....	.....	D. K. Slawson
Hillsdown.....	52.14	113.29	2940	R. E. Fiske
Heather Brae.....	.....	.....	.....	A. W. Fleming
High River.....	50.35	113.53	3394	F. R. Pike
Innisfail.....	52.2	113.57	3087	Hen. George, M.D.
Islay.....	.....	.....	.....	J. R. Giles
Josephsburg.....	.....	.....	.....	Jas. Robinson
Kneehill.....	51.55	113.47	2800	Alex. Wyndham
Kimball.....	.....	.....	.....	John Sloan
Lethbridge.....	49.42	112.51	3240	C. B. Bowman
Lacombe.....	.....	.....	.....	P. J. Crow
Leavings.....	.....	.....	.....	A. Luchia
Medicine Hat.....	50.11	110.37	2161	Walter Crosskill
Macleod.....	49.44	113.24	3090	M. J. Stapleton
Magrath.....	.....	.....	.....	W. J. Hopkins
Morinville.....	.....	.....	.....	O. N. Lavallee
Mayton.....	.....	.....	.....	J. W. Francis
Nanton.....	50.18	113.28	2000	A. D. Meacham
Okotoks.....	.....	.....	.....	J. D. Pugh
Pincher Creek.....	49.11	114.4	3750	G. W. Gill
Pekisko.....	50.35	113.53	3394	F. R. Pike
Ponoka.....	.....	.....	.....	Jno. Hageman

METEOROLOGICAL STATIONS—*Continued.*

STATION	Lat. N.	Long. W.	Altitude in ft.ab'v sea level	NAME OF OBSERVER
Red Deer.....	52.16	113.49	2806	R. E. Fiske
Saddle Lake.....	.....	.....	.....	J. W. Carroll
Stavely.....	.....	.....	.....	A. Brand
Stirling.....	.....	.....	.....	Theo. Brandley
Sion.....	.....	.....	.....	F. W. Nash
Threehills Creek.....	51.30	113.11	3190	W. E. Cutler
Victoria.....	54 0	112.23	2100	Gordon Mitchell
Vermilion.....	.....	.....	.....	Hy. Bowtell
Wetaskiwin.....	53.0	113.20	2480	J. H. Walker
Waitefield.....	52.29	111.38	2000	Thomas B. Waite
Wabamun.....	.....	.....	.....	J. C. Haddock

MONTHLY WEATHER REVIEW, 1906.

JANUARY.—January has been an exceptionally mild month. The temperature much above the average and precipitation below.

Edmonton.—Sleighing medium in country, none in city. No shortage of forage reported and stock doing splendidly; business generally good.

Calgary.—The first half and last week of the month were exceptionally fine, warm and bright with chinook winds; but on the 17th bitterly cold weather set in with high easterly winds, lasting until the 24th.

Medicine Hat.—Except one week the weather has been mild and fine with light snowfall and southerly winds

FEBRUARY.—The weather of February was generally fine and unusually mild; a very light snowfall was experienced in all localities except over a small area in the northern portion of Saskatchewan where the total amount was ten inches.

Calgary.—A very bright pleasant month with occasional very strong south-west winds, snowfall very light; total fall less than two-tenths of an inch.

Edmonton.—The weather of February was mild with much sunshine; the light snowfall which was experienced did not remain on the ground; business was not so good as generally anticipated on account of no sleighing; stock doing well.

Medicine Hat.—Mild dry weather continues; water scarce on some ranges.

MARCH.—*Calgary.*—Up to the 20th of March the weather was very cold and windy but last few days of month very warm; very little gardening or spring work done.

Edmonton.—March opened cold with snow flurries; weather after 20th very warm with little or no frost at night, windy throughout the month, blowing day and night; seeding general on plowed land; river and creek low; no spring birds yet; roads splendid; about three inches of snow fell during the month, but ground practically bare all month.

Medicine Hat.—Except last few days the weather during March was generally cold and dry; reports from stock ranges good.

APRIL.—Plowing on March 20th; local showers general; grass green; winter wheat generally wintered well and spring wheat is up; rivers opened on first and ducks and geese flying on 6th.

Edmonton.—Weather for month fine; very dry and constant wind which was continually shifting; ducks and geese fifth; crows, robins, yellow birds and grasshoppers on 16th; 90% wheat in by end of the month and now sowing oats; all rivers, creeks and lakes very low; grass very backward; grain sown is germinating well; some fields green.

Calgary.—A very dry warm month with high winds; vegetation fairly well advanced; winter wheat looking well but very much in need of rain.

Medicine Hat.—Dry and fine generally during April with much wind; a light rainfall during last week was very beneficial.

MAY.—General agricultural conditions very favourable, excessive rainfall, crops well advanced, prospects promising; winter wheat doing well; fruit trees in blossom. Range cattle condition good, free of disease; local frost did slight damage from the 4th to the 8th; wild flowers and fruit blossom early; rivers and creeks all high.

Edmonton.—Weather for the month was cool and cloudy, more rain needed; crops looking fair, damage from cutworms on summer fallow; winds unusually high; rivers have risen.

Calgary.—The weather until the middle of the month was very dry and windy, killing a good deal of the winter wheat; afterwards it rained almost continuously until the last of the month; everything is now looking well and growing very fast.

Medicine Hat.—Almost continuous light rains during seventeen days in May have put crop conditions in the first class.

JUNE.—The weather was unusually dry in some portions of Alberta and exceedingly wet elsewhere, rain occurring frequently between the 3rd and 21st also on or about the 28th and 30th. Much cloudiness prevailed and the proportion of bright sunshine was below the average, the mean temperature did not depart much from the average, but in many places in Alberta it was somewhat in excess whilst in other districts it was slightly below. Quite warm weather occurred during the first four days, also on or about the 9th to 12th, 23rd to 27th and 30th. Vegetation made rapid progress and on the 30th it was more forward than usual.

JULY.—A very warm month with plenty of moisture for growing crops which never looked better; grain changing color in some localities; harvest will be general in three weeks; hay crop good, also all roots. Rivers high, no hail, no destructive storms.

Edmonton.—High temperature early in month, crops well advanced and promise good yields, slight damage from hail. No damage from any other agency reported. Haying general on the 12th, local showers general throughout month. Winter wheat harvest commenced in south.

Medicine Hat.—The weather during July has been warm and dry. Hay harvest has commenced, grain crops looking well and maturing rapidly.

Calgary.—Crops excellent, wheat coloring; cutting will be in full swing by middle of month, weather hot with occasional showers; prospects good for bountiful harvest.

AUGUST.—The predominant features of the month were the dryness of the larger portion of the North-West and the intense heat which prevailed for a week or ten days about the middle of the month, when at many of the more southern stations the temperature frequently exceeded 90 degrees.

Edmonton.—Harvesting general; haying completed, crop and quality good, several light frosts, not of sufficient intensity to damage crops but affecting the later vegetables. The meteorological observer reports a month of fine weather and very light rainfall; crop nearly all cut in fine condition; hay and root crop good.

Medicine Hat.—Weather generally fine, some high temperatures early in month followed by good rains; grain cutting finished, crops good.

Calgary.—August has been a very fine month, warm and bright throughout; the harvest is well advanced and crops are excellent.

SEPTEMBER.—The weather of the month was cloudy and dry with light variable winds; threshers all busy; reports indicate a big yield; quite first class for all grains. Saskatchewan River rose to summer level but soon fell again; creeks all low; only three degrees of frost recorded.

Calgary.—September weather was very fine, only four hundredths of an inch of rain; harvest is completed and about one-third threshed. Yield is good and grain of excellent quality; root crop particularly good; some very heavy frosts but very little damage.

Medicine Hat.—Fine dry weather during September; range reports good stock now being exported and of excellent quality. Geese migrating south on the 20th; frosts on the 11th and 26th; leaves sere and falling fast; harvest completed, threshing general; vegetable crops good; winter wheat yielding better than expected; light showers fairly general.

OCTOBER.—An extremely fine mild month throughout the Province. Showers occurred occasionally. The first really severe frosts were reported on the morning of the 9th but the weather turned milder again immediately and no low temperature occurred again until the 23rd, after which the night temperature was low. The first appreciable occurred on the 28th.

Edmonton.—The month opened with fine weather generally favorable for threshing operations; greatly increased area sown to winter wheat under very favorable conditions. The observer reports: A fine month, frost on ten nights only, rainfall light and only one flurry of snow; rivers low; threshing pretty well over in many districts, returns show a good yield and good quality.

Calgary.—October has been a good month, warm and bright, with strong winds from westward; sweet peas bloomed in the gardens until the middle of the month; fall wheat in splendid condition.

Medicine Hat.—A mild open month with very light frost and more high winds than usual.

NOVEMBER.—Up to the 14th the weather was on the whole fair and comparatively mild. On the 15th a severe storm with heavy snow set in over Alberta with much colder weather, the first zero temperature being recorded on the 16th.

Edmonton.—Snow plentiful, fine sleighing, rivers frozen up; winter wheat in good condition; the heaviest snowfall for one month on record, 35 inches having fallen; four days zero and below, no frost in ground, building still going on; 10 inches on ground in open, two feet and over in woods; weather mostly cloudy with strong winds.

Calgary.—November has been a pleasant sunshiny month with very little snowfall; about three inches of snow in all which has disappeared; building operations still in full swing.

Medicine Hat.—Unsettled and cold generally during November but no bad storms; stock in good condition.

DECEMBER.—Cold wintery weather prevailed over Alberta.

Edmonton.—Little or no wind, no drifts, no great extremes of temperature.

Medicine Hat.—The weather was dull and cold generally, good snowfall and excellent sleighing, stock doing well and keeping up condition.

Calgary.—December weather was very cold throughout, twice the mercury dropped to 26 below zero; about three inches of snow on ground. Alberta reports that threshing operations were delayed through the heavy snowfall.

DEPARTMENT OF AGRICULTURE

II.—MONTHLY PRECIPITATION, 1906.

STATIONS	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Athabasca Landing...	0 95	0 45	R	0 46	3 20	3 54	2 11	1 09	0 24	0 26	0 85	0 45	0 45
Alix	0 77	0 10	0 20	0 32	2 98	1 91	0 89	2 26	0 84	1 95	0 87	0 85	13 00
Banff	0 44	0 40	0 07	0 22	3 06	2 69	1 95	2 64	0 30	0 32	2 07	1 40	14 88
Blackfalds	0 68	0 17	0 28	0 71	1 73	5 63	1 98	0 81	0 56	0 50	2 35	2 23	15 16
Bon Accord	0 04	0 14	0 70	0 37	6 96	2 35	1 15	3 00	0 04	0 90	0 34	0 25	17 63
Calgary	0 20	0 10	0 35	0 30	7 49	2 67	1 74	3 83	0 17	0 50	0 40	0 50	16 24
Calgary (Ex. Stn.)	0 20	0 10	0 25	0 07	7 09	3 41	0 58	2 85	0 47	0 55	1 50	5 00	17 95
Edmonton	0 70	0 50	0 13	0 54	3 76	4 07	2 06	2 03	0 31	0 59	3 57	1 06	22 07
Gray Hill	0 25	0 48	0 30	0 16	6 40	2 49	0 63	3 62	0 22	1 38	0 45	0 23	13 48
Gleichen	0 93	0 10	0 46	0 58	3 88	2 47	1 94	1 76	0 18	0 41	2 17	1 18	14 30
Hillsdown	0 22	0 20	0 54	0 20	5 25	2 99	0 30	1 59	0 20	0 65	0 81	0 88	16 61
Kneehill	0 50	0 10	0 05	1 30	8 60	2 31	0 83	4 70	0 16	1 93	0 04	0 95	11 18
Lethbridge	0 10	0 70	1 23	0 23	4 37	2 64	0 09	2 16	0 05	0 44	0 04	0 80	22 48
Medicine Hat	0 14	0 12	0 42	0 51	6 56	3 54	1 68	3 26	0 14	0 10	0 80	1 20	11 62
Macleod	0 70	0 70	0 50	1 87	9 28	1 23	2 05	5 75	0 09	0 68	0 60	1 55	20 82
Pincher Creek	0 63	0 63	0 13	0 50	5 56	2 15	1 47	3 63	0 14	1 56	0 60	1 55	21 63
Pekisko	0 45	0 19	0 13	0 63	4 72	3 56	0 90	0 70	0 18	0 69	1 10	0 95	17 86
Red Deer	0 75	0 50	R	1 42	1 63	3 56	0 31	2 34	1 05	0 69	1 10	0 95	3 45
Threehills Creek	0 56	0 32	0 50	0 14	2 17	6 14	3 34	1 00	0 64	0 44	2 38	1 54	15 25
Victoria	0 84	0 15	0 26	3 73	1 62	4 19	3 31	0 45	0 79	0 19	3 07	2 25	16 64
Wetaskiwin	0 31	0 65	0 26	0 36	0 28	6 52	4 40	0 75	0 60	0 44	3 07	2 25	24 57
Wetaskiwin	0 31	0 65	0 26	0 36	0 28	6 52	4 40	0 75	0 60	0 44	3 07	2 25	24 57
Fort Vermilion	0 82	0 44	0 44	0 24	0 85	4 05	1 61	1 14	1 19	1 10	1 00	2 05	8 23
Fort Dunvegan	0 82	0 44	0 44	0 24	0 85	4 05	1 61	1 14	1 19	1 10	1 00	2 05	14 49

III.—TEMPERATURES, 1906.

STATIONS	January				February				March				April							
	Mean	Max.	Date	Min.	Date	Min.	Max.	Date	Min.	Max.	Date	Min.	Max.	Date	Min.					
Athabasca Landing																				
Alix	12.0	46.0	8	-37.0	20	13.5	47.0	2	20.5	12	24.7	64.5	31	-18.5	12	43.7	79.0	22	17.0	12
Banff	19.0	47.0	31	-20.6	23	17.8	50.0	18	11.0	12	22.9	7.0	30	-21.0	11	42.4	73.1	21	16.8	12
Blackfalds	10.4	49.0	25	-31.5	21	18.8	52.0	3	-13.0	14	24.2	72.0	31	-19.5	12	44.6	76.3	23	17.0	11
Bon Accord	10.7	46.2	30	-38.7	22	17.1	50.3	18	-10.5	5	23.8	69.5	31	14.0	11	46.5	73.5	22	23.0	2
Cardston						27.4	4.0	1	-8.0	4	24.0	62.0	29	-28.0	14	46.5	85.0	22	20.0	4
Calgary	16.0	54.0	30	-32.0	21	24.3	61.0	2	-16.0	13	25.4	73.0	30	-25.0	14	45.5	79.0	21	18.0	13
Calgary (Ex. Stn.)	14.3	48.4	29	-35.9	21	21.2	57.4	3	-17.3	13	21.7	71.9	31	-26.6	14	43.6	79.9	24	15.0	11
Dusbury	16.3	54.0	30	-38.0	21	24.0	56.0	2	-8.0	4	40.0	80.0	30	-20.0	12	47.7	84.0	21	20.0	11
Edmonton																48.8	77.0	22	23.0	5
Gray Hill	15.8	50.2	28	-30.4	20	22.4	55.3	2	-5.2	4	26.0	73.4	31	-15.6	14					3
Gleichen	13.1	50.2	25	-43.0	21	22.0	56.0	2	-17.0	14	24.0	74.0	30	-27.5	14	45.2	85.5	22	11.0	10
Hillsdown	14.8	53.0	25	-31.7	21	21.8	54.0	2	-10.0	14	26.1	73.0	31	-20.0	12	46.2	78.2	21	21.0	11
Kneehill	8.8	47.0	25	-14.0	21	18.3	50.0	2	-17.0	14	21.9	73.0	30	-23.5	14	42.0	82.0	22	8.0	10
Lethbridge	21.7	56.7	26	-22.8	23	27.0	65.4	2	-7.7	4	26.6	73.8	31	-22.2	14	51.0	92.5	23	24.2	2
Medicine Hat	18.4	55.0	4	-30.8	21	25.8	59.0	18	-15.5	13	27.4	75.0	31	-21.5	14	50.6	94.0	22	10.4	3
Macleod	18.9	56.0	26	-28.0	22	25.0	62.0	1	-16.0	14	23.0	82.0	28	-33.0	14	45.1	83.0	21	18.0	3
Pincher Creek	23.3	53.0	31	-23.0	22	27.7	58.0	2	-0.9	4	23.8	66.0	31	-24.0	14	43.4	80.0	22	16.0	12
Pekisko								2	-23.5	12						40.4	87.0	22	6.0	3
Red Deer																				12
Threehills Creek																				12
Victoria	7.4	46.0	25	-42.5	21	17.7	48.5	2	-13.5	14	22.6	73.5	31	-24.5	12	42.9	84.0	22	11.0	13
Wetaskiwin	18.2	50.8	8	-48.0	22	11.7	49.1	18	-28.5	13	25.4	73.0	31	-23.0	12	43.6	76.8	22	20.0	13
Wainfield	12.7	46.0	31	-29.0	21	18.5	49.0	3	-11.0	13	22.7	68.0	31	-16.0	12	47.3	78.0	23	22.0	11
Wattleford	9.1	58.8	4	-41.0	21	12.8	47.5	2	-25.0	13	20.4	73.4	31	-23.0	12	45.7	82.2	22	12.0	10
Dunvegan	7.1	50.0	30	-61.0	22	12.9	50.1	2	-15.0	13						47.6	75.0	21	20.0	28
Fort Vermilion	12.6	41.0	8	-47.0	20	-2.2	17.2	21	-42.0	11						42.9	68.3	30	14.5	1

TEMPERATURES, 1906.—(Continued.)

[illegible]

HAIL INSURANCE.

The policy of insuring crops against hail as inaugurated by the Territorial Government in accordance with the provisions of the Hail Insurance Ordinance, has been continued, and the Treasury Department, under whose jurisdiction the Ordinance comes, has kindly furnished the following statement with reference to the amount of crop insured:

Number of contracts	3,223
Number of claims for indemnity.	531

Acreage Insured.

Wheat.	30,936
Oats	93,794
Barley	26,682
Flax.	419
Speltz.	79
	<hr/>
	151,910
 Acreage fully insured.	 136,302
Acreage partially insured	15,608
	<hr/>
	151,910

Amount paid for premiums at rate of 15cts. per acre	\$ 21,673 18
Indemnity paid	21,647 49

Expenses.

Paid local examiners' fees	\$ 1,808 83
Paid special examiners' fees	879 50
Arbitrations	51 60
Clerical services	645 00
Postage and post cards	170 00
	<hr/>
	\$3,554 93

Estimated acreage under crop	540,000
Acreage insured	151,910
Approximate proportion of total acreage under crop insured	3 5
Approximate average indemnity paid per acreage insured	\$1 27
Number of acres damaged	16,546
Percentage of insured acreage damaged.	11%

CROP STATISTICS.

After a mild winter spring opened early. The ground worked easily and farmers reported generally that it was the best seed time they had ever experienced. The weather was warm but with a trace of coolness in it that made the work not over heating for the teams. The seed sprouted and came up well but was then retarded by a period of dry weather that set the young plants back considerably. The condition of soil produced by these circumstances proved ideal for the hatching of numerous bands of cutworms. Owing to the slow growth being made by the young grain plants, due to the dry weather, the ravages of the cutworms proved most serious. In places these pests devoured whole fields of grain, moving across the land

with a persistence that was all the more alarming because unseen. The trouble was investigated by the Department's chief inspector of weeds, and a newspaper bulletin issued explaining how to stop the work of these pests. Many farmers tried the remedies recommended—some with but little faith,—and generally found that one good application of poisoned bran did the work. Full particulars will be found in the report of the chief inspector of weeds. Abundant rains in June, together with fine growing weather, soon put the crop beyond the cutworms. Harvest weather was excellent and the whole crop was taken off without any frost. Snow came early and in such quantities that threshing operations in many cases had to be abandoned until spring.

In the early part of the year the final statistics regarding the crops of 1905 were received and a bulletin issued giving a summary of it. Realizing, however, that the number of crop correspondents throughout the Province was not sufficient to make as accurate an estimate as the Department would like, it was decided to obtain one good crop correspondent in each township. It was thought that if such a corps of capable crop correspondents could be obtained that much more accurate returns would be secured with reference to the increase in acreage brought under cultivation and the estimated yields. The work of securing these crop correspondents has been followed up steadily with the result that the more settled portions of the Province are now fairly well covered. From a staff of less than 50 correspondents at the inception of the Province the number has increased to 527.

The crop correspondents make returns on a percentage basis of the increase in acreage brought under cultivation to any crop and also of the estimated yield. Based upon these returns two bulletins were issued during the summer giving prospective yields.

Actual results of grain are obtained from the threshers, each one being supplied with a blank book in which to enter the amounts of the various grains threshed by him for the individual farmer. A vigorous effort was made to obtain a complete list of the threshers in the Province and in this work over 2,000 letters were sent out with the result that nearly 800 threshers were reported to the Department. Some of these proved to be duplicates, while others had sold their machines, leaving a total of 531 as being the number of actual threshers in the Province.

The returns from these threshers form the basis of the final crop report giving the actual yield of grain in the Province.

CROP DISTRICTS.

District No. 1.—Area 2,872 square miles. Cardston District. Includes country adjacent to the line of the St. Mary River Railway from Magrath to Cardston and to the Alberta Railway and Irrigation Co.'s line from Tyrell's Lake to Coutts.

District No. 2.—Area 5,220 square miles. Claresholm, Macleod, Stavely and Pincher Creek District. Includes country adjacent to the Crow's Nest Branch of the Canadian Pacific Railway from St.

Mary's westward to the Rocky Mountains, and to the Macleod Branch from Macleod north to Townships 14.

District No. 3.—Area 4,878 square miles. Lethbridge, Raymond and Stirling District. Includes country adjacent to the Crow's Nest Branch of the Canadian Pacific Railway from Bow Island westward to St. Mary. Mostly ranching country.

District No. 4.—Area 4,284 square miles. DeWinton, High River, Nanton and Okotoks District. Includes country adjacent to the Macleod Branch of the Canadian Pacific Railway from Midnapore south to Townships 15.

District No. 5.—Area 9,268 square miles. Cochrane, Calgary, Crossfield and Gleichen District. Includes country adjacent to the main line of the Canadian Pacific Railway from Langevin westward to the Rocky Mountains.

District No. 6.—Area 13,680 square miles. Medicine Hat District. Includes country adjacent to the main line of the Canadian Pacific Railway from Walsh to Langevin and extending north ward to Townships 38. Almost entirely ranching country.

District No. 7.—Area 6,822 square miles. Carstairs, Didsbury and Olds District. Includes country adjacent to the Edmonton Branch of the Canadian Pacific Railway from Crossfield to Bowden, extending eastward to Range 11 west of the fourth meridian, and westward to the Rocky Mountains.

District No. 8.—Area 4,709 square miles. Bowden and Innisfail District. Includes country adjacent to the Edmonton Branch of the Canadian Pacific Railway from Bowden to Penhold.

District No. 9.—Area 2,917 square miles. Red Deer District. Includes country adjacent to the Edmonton Branch of the Canadian Pacific Railway from Penhold to Blackfalds.

District No. 10.—Area 2,412 square miles. Lacombe District. Includes country adjacent to the Edmonton Branch of the Canadian Pacific Railway from Blackfalds to Morningside and to the Lacombe Branch from Lacombe to Stettler.

District No. 11.—Area 2,750 square miles. Ponoka District. Includes country adjacent to the Edmonton Branch of the Canadian Pacific Railway from Morningside to Hobbema.

District No. 12.—Area 2,520 square miles. Wetaskiwin District. Includes country adjacent to the Edmonton Branch of the Canadian Pacific Railway from Hobbema to Millet and to the Wetaskiwin Branch from Wetaskiwin to Daysland.

District No. 13.—Area 8,388 square miles. Vermilion District. Includes country adjacent to the Canadian Northern Railway from Chipman to Lloydminster. Greater part unsettled.

District No. 14.—Area 2,250 square miles. Fort Saskatchewan, Leduc and Strathcona District. Includes country adjacent to the Edmonton Branch of the Canadian Pacific Railway from Millet to Edmonton and to the Canadian Northern Railway from Edmonton to Fort Saskatchewan.

District No. 15.—Area 2,808 square miles. St. Albert and Stoney Plain District. Includes that territory bounded on the south by the North Saskatchewan River, on the north by Townships 60; extending eastward to Range 25, west of the fourth meridian and westward to Range 5, west of the fifth meridian.

District No. 16.—Area 5,184 square miles. Victoria District. Includes that territory between Townships 55 and 60 inclusive, extending eastward to the fourth meridian and westward to Range 24, west of the fourth meridian.

District No. 17.—Area 172,578 square miles. Peace River, Athabasca and Sturgeon District. A vast territory lying in the northern and northwestern portion of the Province. As yet but little is known of the agricultural possibilities of this district. A few facts are given below with respect to certain settlements which, although too vague to be included in the general statistics and not entirely relative to crops, are yet of great interest in that they indicate some of the possibilities of this great tract of territory. The crops reported are also stated to be below the average this year in volume and yield. Owing to the great distance from any railroad, the market for all the produce of this northern district is at present local, but as the several projected railway lines into this district are built, the country will undoubtedly become rapidly settled.

Fort Vermilion (Lat. N. 58 degrees 24 minutes, Long. 116 degrees 0 minutes), is about 350 miles north of Edmonton and 100 miles from the northern boundary of the Province. The settlement in this district extends about 25 miles along the Peace River and is 4 or 5 miles in width. It has about 300 head of horses and 500 head of cattle owned by sixty farmers and ranchers. In 1905 six or seven thousand bushels of wheat were grown and about 3,000 bushels of barley. A good vegetable crop is also reported. There are four mills, one of which is a large roller mill, the other three being small grist mills.

Peace River Crossing (near T. 83 R. 21, W. 5th meridian). This district, which is about 15 miles long and a little more than two miles in width, has about 150 head of horses and the same number of cattle. The reported crop for 1905 is about 3,000 bushels of wheat and 1,500 bushels of oats. There are two small grist mills.

Spirit River.—This district is about 15 miles square and has from 250 to 275 head of cattle and from 300 to 400 head of horses. The crop in this district totalled about 1,000 bushels of wheat and 1,000 bushels of oats, while the vegetable crop is also stated to be good.

Grand Prairie.—It is reported that in this settlement there are about 200 head of cattle and a large number of horses.

Below will be found tables showing the acreage sown to the various grains, the yield per acre and the average yield for the past two years, together with a table showing the averages for the past 9 years:

CROP STATISTICS.

	SPRING WHEAT				WINTER WHEAT				OATS				BARLEY			
	Bushels	Ac're	Y'd per acre	Average yield	Bushels	Ac're	Yield per acre	Average yield	Bushels	Ac're	Yield per acre	Average yield	Bushels	Ac're	Yield per acre	Average yield
1 1905	33,713	2,073	16 26	20 90	199,841	11,922	16 76	19 51	121,896	4,082	29 86	40 83	14,510	565	25 68	33 30
1906	97,503	4,189	23 27		164,999	6,771	24 36		353,145	7,552	46 76		44,538	1,208	36 86	
2 1905	281,780	13,998	20 13	23 86	249,939	9,566	26 12	24 01	450,063	13,068	34 44	36 98	26,060	1,089	34 44	24 84
1906	624,754	23,992	26 04		563,590	24,355	23 14		1,114,447	29,232	38 12		61,512	2,436	25 25	
3 1905	76,647	8,128	9 43	16 02	46,224	4,190	11 03	14 71	77,266	3,688	20 95	31 72	4,079	273	14 94	23 99
1906	202,444	9,287	21 79		129,459	7,745	16 71		303,437	8,313	36 50		16,913	602	28 09	
4 1905	51,031	1,783	28 62	21 08	99,042	3,006	32 94	17 73	1,110,902	22,545	49 27	45 00	99,259	3,266	30 39	31 03
1906	82,727	3,611	22 90		174,457	12,413	14 05		2,132,463	49,525	41 03		163,718	5,207	31 44	
5 1905	26,900	793	33 92	28 23	21,599	671	32 18	27 25	477,221	10,991	43 41	44 56	58,308	1,821	32 01	30 22
1906	25,341	1,057	23 97		38,879	1,474	26 37		687,487	15,142	45 40		75,513	2,607	28 96	
6 1905	60,876	3,834	15 87	17 66	1,902	94	20 23	28 96	162,338	4,970	32 66	31 32	21,974	822	26 73	25 48
1906	145,946	7,876	18 53		2,762	67	41 22		135,462	4,538	29 85		19,774	816	24 23	
7 1905	13,172	542	24 30	22 00	31,348	1,110	28 24	26 10	594,770	14,944	39 79	37 44	181,198	6,216	29 15	28 58
1906	66,556	3,082	21 59		168,791	6,349	26 58		965,423	26,719	36 13		238,433	8,484	28 10	
8 1905	20,942	910	23 01	17 72	573	22	26 04	27 46	396,688	9,639	41 15	41 87	107,321	3,332	32 20	31 05
1906	34,347	2,209	15 54		8,600	312	27 56		423,977	9,977	42 49		108,006	3,602	29 98	
9 1905	11,309	446	25 35	23 45	4,700	172	27 32	27 88	387,533	10,078	38 45	39 13	85,253	3,030	28 13	29 87
1906	28,533	1,253	22 78		18,581	663	28 02		469,638	11,820	39 73		90,438	2,851	31 72	
10 1905	27,431	948	28 93	22 54	2,954	118	25 03	24 50	791,211	20,247	39 07	37 59	120,438	4,083	29 49	29 56
1906	48,784	2,432	20 05		3,544	147	24 10		641,577	17,860	35 92		104,813	3,537	39 63	
11 1905	85,789	3,238	26 49	24 48	1,110	46	24 11	25 14	650,838	15,171	40 90	38 75	154,646	5,518	28 02	29 32
1906	171,197	7,258	23 58		952	36	26 44		886,338	24,497	36 18		168,982	6,455	26 17	

CROP STATISTICS.—Continued.

	RYE										FLAX				SPELTZ			
	Bushels	Acreage	Yield per acre	Average yield	Bushels	Acreage	Yield per acre	Average yield	Bushels	Acreage	Yield per acre	Average yield	Bushels	Acreage	Yield per acre	Average yield		
12 1905	144,755	5,355	27.03	196	10	19 60	20.58	1,129,417	26,839	42 08	33.01	184,502	6,030	30.50	27.02			
1906	141,382	6,758	22.40	6,104	296	20 62		1,075,035	39,937	34.74		148,971	5,719	26.04				
13 1905	73,963	3,010	24.57	4,206	207	20 31	20 11	533,810	13,145	40 60	40.47	91,711	3,504	26.15	27.44			
1906	186,492	7,147	26.09	2,552	129	19 78		720,863	17,853	40 37		95,907	3,328	28.81				
14 1905	256,439	10,435	24.57	3,289	127	25.89	25.97	1,126,229	31,327	35 95	39.00	260,675	10,538	24.73	28.19			
1906	338,195	13,825	24.46	270	10	27.00		1,664,594	42,783	38.90		402,289	12,978	30.97				
15 1905	154,595	7,660	20.18	8,426	365	23 08	22 82	469,231	13,665	34 33	37 66	125,191	5,107	24.51	27.47			
1906	267,426	13,144	20.34	5,157	230	22 42		862,665	21,697	39 75		212,835	7,195	29 58				
16 1905	298,163	12,200	24.43	14,670	548	26.77	26.27	1,034,767	28,402	36 43	37.84	238,789	9,636	24.78	27 12			
1906	185,181	7,561	24.49	233	19	12 26		678,894	16,881	40.21		194,428	6,333	30.77				
17 1905	17,887	822	21.76	12,429	619	20.07	.....	21,468	402	53 40	.....	10,887	230	47.33	.....		
1906																		

CROP STATISTICS.—Continued.

	RYE				FLAX				SPELTZ			
	Bushels	Acreage	Yield per acre	Average yield	Bushels	Acreage	Yield per acre	Average yield	Bushels	Acreage	Yield per acre	Average yield
1.	1905	2,647	143	18 51	.....	.....	.....	.....	.....	.....	.....	.....
1906												
2.	1905	197	15	13 13	70	9	7 77	11 68	477	28	17.03	27.40
1906					17,187	1,467	11 71		2,592	84	30.85	
3.	1905	170	8	21.25	225	6	37 50	10.54	1,669	63	26.49	.....
1906					4,046	399	10.14					
4.	1905	41	2	20 05	2,491	206	12 09	12 52	949	25	37.96	30.75
1906					7,310	575	12 71		591	16	36.93	
5.	1905	409	26	15.73	717	25	28 64	15.55	22	2	11.00	.....
1906					1,134	94	12 06					

CROP STATISTICS—Continued.

	RYE				FLAX				SPELTZ			
	Bushels	Acreage	Yield per acre	Average yield	Bushels	Acreage	Yield per acre	Average yield	Bushels	Acreage	Yield per acre	Average yield
6. 1905	237	14	16.92	...	1,048	67	15.64	11.78	343	12	28.58	28.60
1906					744	85	8.75		1,059	37	28.62	
7. 1905	2,109	132	15.97	...	721	68	10.00	10.14	...	29	33.25	...
1906					1,867	187	9.98		...			
8. 1905	229	20	11.45	...	...	...	...	...	...	...	...	...
1906					...	...	...		...	...	...
9. 1905	756	43	17.58	...	215	11	19.54	7.70	136	7	19.42	18.87
1906					1,056	154	6.85		15	1	15.00	
10. 1905	618	30	20.60	...	1,127	52	21.67	8.69	95	3	31.66	40.73
1906					984	230	4.27		516	12	43.00	
11. 1905	10,081	397	25.39	...	530	47	11.27	8.52	899	28	32.10	24.21
1906					2,207	274	8.54		481	29	16.58	
12. 1905	1,541	57	27.03	...	687	56	12.26	10.80	723	36	20.08	27.38
1906					501	54	9.27		1,383	42	32.92	
13. 1905	960	142	67.60	...	401	25	16.04	11.54	220	5	44.00	36.28
1906					1,180	112	10.53		1,558	47	33.10	
14. 1905	1,087	40	27.17	...	...	...	...	...	82	2	41.00	45.66
1906					144	8	18.00		192	4	48.00	
15. 1905	...	...	...	...	...	7	...	...	...	...	...	...
1906					56	...	...		...	...	...
16. 1905	1,380	70	19.71	...	49	2	24.50	5.38	495	32	15.46	17.63
1906					144	8	18.00		369	17	21.70	

SUMMARY of the Acreage and Yields of the Leading Grains in Alberta during the last nine years.

	Year	Crop area in acres	Total yield in bushels	Average yield per acre	Average yield
Spring Wheat	1906	115,502	2,664,661	23.07	21.27
	1905	75,353	1,617,505	21.46	
	1904	47,411	786,075	16.58	
	1903	59,951	1,118,180	18.65	
	1902	45,064	850,122	18.86	
	1901	34,890	857,714	24.58	
	1900	30,361	583,806	19.22	
	1899	35,090	833,123	23.74	
	1898	31,348	792,417	25.27	
Winter Wheat	1906	61,625	1,301,359	21.11	21.20
	1905	32,174	689,019	21.41	
	1904	8,296	152,125	18.33	
	1903	3,440	82,418	23.95	
Oats....	1906	335,728	13,136,913	39.12	37.13
	1905	242,801	9,514,180	39.18	
	1904	180,698	5,609,496	31.04	
	1903	162,314	5,187,511	31.95	
	1902	118,997	3,776,976	31.74	
	1901	104,533	4,253,284	40.68	
	1900	77,616	2,625,681	33.82	
	1899	51,929	2,189,441	42.16	
Barley....	1898	38,964	1,734,197	44.50	27.40
	1906	73,588	2,157,957	29.32	
	1905	64,830	1,773,914	27.36	
	1904	61,549	1,608,241	26.12	
	1903	42,219	1,077,274	25.51	
	1902	22,201	473,108	21.31	
	1901	13,483	442,381	32.81	
	1900	9,256	234,971	25.37	
Flax.	1899	6,655	178,395	26.80	11.97
	1898	8,742	279,826	32.00	
	1906	3,647	38,491	10.65	
	1905	581	8,337	14.34	
	1904	367	5,003	13.63	
Speltz....	1903	830	7,753	9.34	25.38
	1902	373	4,476	12.00	
	1906	385	11,423	29.67	
	1905	178	4,419	24.82	
Rye.....	1904	112	2,426	21.66	19.70
	1906	1,139	22,462	19.70	

Total crop area, 1906, 591,614 acres.

Total crop area, 1905, 415,917 acres.

Total crop area, 1904, 298,433 acres.

NOTE.—All yields shown are from threshers' measure and not by weight.

HARVEST HELP.

Owing to the abundant crop, fear was expressed in many districts that there would not be sufficient help available to take off the harvest. The Department accordingly sent out enquiries in all directions to ascertain the amount of help available in the Province and the amount that would be needed from outside points. It was ascertained

that something like 2,000 hands were wanted. The matter was taken up with the C.P.R. authorities at Winn'peg with the object of having some of the harvest excursionists sent on to Alberta. The railway authorities agreed to the proposition and granted a rate of two-thirds of a cent a mile from Moose Jaw to destination and a return rate of one cent a mile. This provision not having been advertised in the east it was not taken advantage of as fully as it otherwise would have been. Quite a number of harvest hands did come to Alberta, however, and as a general thing there was plenty of help available. Arrangements will be made another year with the railway companies to again forward harvest help and to advertise this fact in the east beforehand.

ADULTERATED BLUESTONE.

At the meetings held on the Weed Special as it passed through the Province a good deal of stress was laid on the importance of treating wheat intended for seed with bluestone in order to destroy any smut spores there might be upon it. It was also pointed out that a great deal of adulteration had been practised and as a result it was feared that much of the bluestone sold was not effective when used to kill the smut spores. Bluestone is a compound formed by the action of sulphuric acid upon copper. The resulting compound is of a dark bluish color and rightly called blue vitriol or copper sulphate.

Unscrupulous dealers have used iron instead of copper because much cheaper. When this substitution is made, green vitriol or iron sulphate is produced, the compound having a greenish color instead of the deep characteristic blue. This has been called agricultural bluestone and sold as such to the unsuspecting. It is not effective in destroying the smut spores in wheat and it was generally suspected that the complaints made by many farmers that they could see no good results following the use of bluestone was due to the use of adulterated goods. Consequently arrangements were made with the Bacteriological Laboratory at Regina to test any samples that might be sent forward suspected of being adulterated. This was taken advantage of and a number of samples gathered by Mr. W. F. Stevens, of Clover Bar, at institute meetings were forwarded. In all cases, however, these samples proved not to have been adulterated. The following is the report of the Bacteriologist, Dr. G. A. Charlton, on them:

"I might say that the four samples sent are not adulterated and are up to the average in percentage of copper. We have examined a large number of samples of bluestone from all parts of Saskatchewan, some from Manitoba, and some from Alberta. We have not yet come across an adulterated sample, and they are all about the same percentage in copper as the reports enclosed, that is running between 31% and 33%. Bluestone when exposed to dry air for a length of time loses a part of its water of crystalization and becomes encrusted with a greyish green powder. It is just possible that this may have misled persons who are unaware of this property to conclude that some other substance is present.

"I am inclined to think that the trouble experienced by the farmers in regard to the smut in wheat treated with bluestone is largely due to the method of treating the grain. Perhaps alkali water has been used, in which case only a part of the copper sulphate was available as a fungicide. Again, the solution may have been too weak or may have been indifferently applied; or the wheat may have been so smutty that a goodly number of spores survived the treatment.

"With regard to formalin I cannot speak so favourably. I have examined so far 12 samples, only three of these were of 40% strength. One a frosted sample contained only 30% of available formaldehyde, the others ranged in between these two extremes. One sample of formalin had on it directions which might lead one to suppose that the bottle contained a pound (16 ozs.), when in reality it contained 11½ ozs., less than ¾ of a pound, the strength of this solution was barely 38%. Here is where the farmer loses twice to begin with, short measure and inferior formalin. I do not know whether it is the custom of the dealers to sell short measure but the matter is worth looking into. The second lot of six samples, Nos. 5 to 10, show that three of them contain a small amount of iron but not enough to interfere with their efficacy as a fungicide."

REPORT ON ANALYSIS OF BLUESTONE.

Laboratory No.	Copper Oxide	Sulphur Tri-Oxide	Water of Crystalization	Terri and Albumina Oxide	Remarks
1	32 09%	31 85%	36.06%	. . . .	Genuine
2	32 03	31 75	36 22	.	"
3	31 04	30 83	38 13	.	"
4	31.02	30 81	38 17	. . . .	"
5	32 05	31 84	36 11	.	"
6	34 02	33 79	32 19	.	"
7	32 06	32 27	35 67	027	Adulterated
8	33.03	32 81	34.16	.06	"
9	32 03	31 84	36.13	.09	"
10	34.02	33 79	32 19	.	Genuine

32 27% of copper oxide represents chemically pure copper sulphate.

IRRIGATION.

The United States Department of Agriculture has classified soils as humid, where the rainfall is abundant for all purposes of vegetation, or practically where the annual precipitation exceeds 20 inches; as semi-arid where the precipitation is between ten or 12 and 20 inches, and as arid when the annual rainfall falls below 10 inches. References to the tables elsewhere in this report giving the annual precipitation for the year will demonstrate that a good deal of Alberta comes under the semi-arid class. The situation is much improved, however, owing to the fact that the heaviest rains of the year come during the growing period, viz.: in June and July. This, with careful methods of cultivation, insures, as a general rule, abundant crops. To guard against any possible failure quite a number of irrigation ditches have been constructed. Some of these have been on quite a small scale, while others have been much more

pretentious. In the neighbourhood of Calgary a number of small irrigation ditches were constructed some years ago, but owing to rather wet seasons their usefulness could not be demonstrated and they were gradually allowed to fall into disuse. In the section of country settled by the Mormons an extensive irrigation ditch has been dug, the water being taken from the St. Marys river. In this section many of the close observing farmers have declared that irrigation was unnecessary because the soil was too retentive on account of the large amount of vegetable matter which it contained, the water was too cold, the average season is without excessive heat and there is nearly always a cool night. This is quite different to the conditions experienced in those districts in which irrigation has made the greatest headway. There the soil is lighter, it warms up more readily and the nights being excessively hot, evaporation is very great, consequently water can be used very successfully. The rainfall coming during the growing season has also something to do with the Mormons abandoning their water rights as they have generally done. The contention of these farmers is that by adopting a proper system of soil culture sufficient moisture can be preserved to insure a good crop of grain in almost any year. Whether this contention is correct or not is still a matter which has to be decided, and it will be a wise action for these farmers not to allow their water rights to lapse until such time as the fact has been conclusively proven that the system of soil culture which they are relying upon has shown that it is capable of conserving the moisture to a sufficient extent as to ensure the growing of successful crops.

The largest irrigation scheme is that started by the C.P.R. in the neighbourhood of Calgary. Water is taken from the Bow River and carried eastward for quite a long distance. In order to make their scheme successful they were able to exchange the land in this district controlled by the Dominion Government for other land in outlying districts, and were thus able to consolidate all the land likely to be served by the irrigation ditch. Originally a C.P.R. Company, it has recently been reorganized on another basis, and gentlemen are now in control of it who have had large experience in irrigation matters in the States to the south. A determined effort will now be made to bring the desirable features of this scheme to the notice of intending settlers, particularly those from the States where irrigation is followed. There can be no doubt that if this move proves successful in inducing farmers to settle along the ditch that it presents great possibilities for soil culture. Having the moisture at command there should be no reason why maximum crops should not be raised. This would be a great boon to the Calgary district, and means equally as great things for the city of Calgary itself. There is no doubt that experience in using water will soon demonstrate the best way of applying it and the proper amounts to use.

Another irrigation scheme on quite a large scale has been started in connection with land adjacent to the junction of the Bow and Belly Rivers. As yet little has been done on this scheme other than to arrange for it on paper. When all these irrigation ditches have been completed as planned Alberta will take quite a prominent place so far as irrigation is concerned.

III.—AGRICULTURAL EDUCATIONAL WORK

A progressive policy with regard to educational work has been constantly pursued throughout the year. The Department is of the opinion that one of the best works it can do for the farmer is to put him in possession of the latest and most improved methods of pursuing his work and of preparing and marketing his products. Having this knowledge he then is in a position to make the best of the situation.

In arranging for speakers for stock judging schools and institute meetings the Department is indebted to the Live Stock Commissioner's office of the Federal Department of Agriculture for the services of J. Standish, V.S., of Walkerton, Ont., who took charge of the instructive work with horses at the stock judging schools; for Mr. Duncan Anderson, of Rugby, Ont., who gave instruction in cattle, sheep and swine; and for Mr. A. W. Foley, Bowmanville, Ont., who judged the annual poultry shows at Edmonton and Lethbridge, and afterwards addressed a series of meetings throughout the Province on poultry raising. All of these men are well posted in their subjects and were of the greatest assistance to the farmers and the Department. Mr. A. W. Foley proved so able a demonstrator that, when he had completed his series of spring meetings, he was engaged to return during the summer to explain to the farmers the principles underlying the fattening of poultry by the crate system.

STOCK JUDGING SCHOOLS.

The stock judging schools held throughout the Province during the previous two seasons have proved of such benefit to stockmen that an extensive series of them covering the whole country was planned. Score cards giving the comparative value of the various points of the animals were printed and used in demonstration work. Cards were devised for light horses, heavy horses, beef cattle, dairy cattle, sheep and swine. In the use of these cards it was carefully explained that it was not the intention that the cards should be used in the process of judging animals, in the show ring for instance, but more for instructive purposes in the schools in order to give breeders an accurate idea of the comparative values of the different portions of the animal's frame.

The following is a list of the places and dates at which meetings of this character were held and the names of the speakers:

PLACE	DATE	SPEAKERS
Medicine Hat.....	February 19, 20	J. Standish, V.S., Walkerton, Ont. D. Anderson, Rugby, Ont. A. W. Foley, Bowmanville, Ont.
Lethbridge.....	" 21, 22	
Raymond.....	" 23	
Magrath.....	" 24	
Cardston.....	" 26, 27	
Pincher Creek.....	March 1, 2	J. Standish, V.S. D. Anderson.
Macleod.....	" 3	
Okotoks.....	" 5, 6	
Didsbury.....	" 7, 8	
Olds.....	" 9, 10	
Innisfail.....	" 12, 13	
Edmonton.....	" 14, 15	
Wetaskiwin.....	" 16, 17	
Ponoka.....	" 19, 20	
Lacombe.....	" 21, 22	
Red Deer.....	" 23, 24	

AGRICULTURAL INSTITUTES.

Besides this series of stock judging schools the following regular institute meetings were held for the discussion of topics of general interest. At the meetings in the south country special attention was paid to dry farming:

LIST OF AGRICULTURAL INSTITUTE MEETINGS held in Alberta during the year 1906.

PLACE	DATE	SPEAKERS
Crossfield.....	February 20	Arch. Mitchell, Edmonton. E. L. Richardson, Calgary. W. F. Stevens, Clover Bar.
Carstairs.....	" 21	
Didsbury.....	" 22	
Olds.....	" 23	
Bowden.....	" 24	
Innisfail.....	" 26	Bryce Wright, De Winton. W. F. Stevens, Clover Bar. M. D. Geddes, Calgary.
Penhold.....	" 27	
Red Deer.....	" 28	
Blackfalds.....	March 1	
Spruce Grove.....	" 2	
Stony Plain.....	" 2	
Fort Saskatchewan.....	" 3	
East Clover Bar.....	" 5	
Clover Bar.....	" 5	
Leduc.....	" 6	
Wetaskiwin.....	" 7	
Ponoka.....	" 8	
Lacombe.....	" 9	
De Winton.....	February 27	Arch. Mitchell, Edmonton. D. W. Warner, Edmonton. A. W. Foley, Edmonton.
Okotoks.....	" 28	
High River.....	March 1	
Cayley.....	" 2	
Nanton.....	" 3	
Staveley.....	" 5	
Claresholm.....	" 6	
Macleod.....	" 7	
Pincher Creek.....	" 8	
Lethbridge.....	" 9	
Stirling.....	" 10	
Raymond.....	" 12	
Magrath.....	" 13	
Cardston.....	" 14	

AT THE SUMMER FAIRS.

Opportunity was taken of the presence of large numbers of people at the summer fairs to provide instructional work. The Department had several tents in which demonstration work of various kinds was conducted. The Chief Inspector of Weeds attended these fairs with an exhibit of weeds, meeting the local weed inspectors and farmers, explaining and discussing with them the various noxious weeds prevalent in the district and the best methods of destroying them.

Mr. A. W. Foley in another tent had an exhibit of the latest appliances in connection with the poultry industry, particularly a fattening crate, trap nest, self-feeding hoppers, etc.

In another tent a travelling dairy under the supervision of Mr. H. S. Pearson, of the Dairy Commissioner's staff, gave demonstrations in the separating of milk and in the churning of butter.

In another part of the same tent a school of instruction in domestic science was held under the management of Miss E. G. Charlton, of Buffalo, N.Y. The idea of this work was to give the women on the farms some idea of the principles underlying the cooking of food.

Owing to other work being under way it was impossible to supply all these lines of work to all the fall fairs; an effort was made, however, to have at least one of these features present at every fair.

DOMESTIC SCIENCE.

The reception given to Miss Charlton's work at the summer fairs was so hearty that it was decided to hold a school of instruction for four days in Medicine Hat with the object of ascertaining whether the women of the towns and country side would take advantage of the opportunity of learning something about the scientific principles underlying the work in the home.

Arrangements were made for a class room with a cook stove and sufficient utensils to demonstrate the work of the following programme:

Tuesday, August 21st:

- 2 P.M.—Canning and Preserving. Address and demonstration.
- 8 P.M.—Value of Domestic Science for Girls and Young Women.

Wednesday, August 22nd:

- 10 A.M.—The School Girl's Home Duties. Talk and simple demonstrations.
- 2 P.M.—Commonplace Foods—Meat, Milk and Eggs. Address and demonstration.
- 8 P.M.—Science and System in Housekeeping. The Domestic Problem.

Thursday, August 23rd:

- 2 P.M.—The Sensible Meal. Address and demonstration.
- 8 P.M.—Practical Sanitation and Rational Furnishings.

Friday, August 24th:

- 2 P.M.—Fruits and Vegetables. Address and demonstration.
- 8 P.M.—(a) Small Leakages.
(b) Hints on Laundrying.

The above gives an excellent idea of the work which it was attempted to cover. The school was well advertised and held on August 21, 22, 23, 24. The attendance was rather small the first session, there being between twenty-five and thirty in attendance,—some of them being quite young girls. As the scope of the work undertaken was more fully understood the attendance increased and closed with over an hundred. A great number of women were present at each session. They appeared enthusiastic and interested and after they became acquainted began to ask questions particularly at the close of the session. Those in attendance were particularly pleased with the work of instruction and asked that the school be held again.

For years work has been carried on among the farmers of the Province in order to present to them the most approved and up to date methods in connection with their work. That much good has been done no one can deny. But are not the farmers' wives deserving of equal help and encouragement in their work in the farm home? The work of women's institutes in other Provinces has been of the greatest benefit and would be in this Province also. There is no question that if farmers' wives understood more fully the principles of their work and could meet together to discuss new and improved methods of work the home life would be more enjoyable, and with this improvement would come greater contentment with life on the farm and less desire for life in other spheres. So long as children on the farm are brought up with the idea that to become a clerk in a country store is a step higher than to remain on the farm; that to belong to one of the learned professions is the thing in life most to be desired and that any work almost, which takes them away from the farm, is a step in advance, just so long will farmers be hewers of wood and drawers of water. True education will teach the farmer, his wife and family that there is no higher calling—no more independent one—than that of working with nature in the cultivation of the soil and in the handling of the plant and animal life upon the farm. It is hoped therefore that at an early date it will be possible to arrange for special meetings for the women.

A SEED SPECIAL.

The Seed Branch of the Dominion Government working in co-operation with the railways of the west and the various Provincial Departments of Agriculture, organized a special train which travelled through the country holding meetings at practically all leading points. Addresses were given upon the value of good seed, of clean seed, and the best methods of obtaining such. While the stop at each point was very short yet the attendance was quite large and the enthusiasm aroused by such a novel procedure has, it is believed, been of inestimable value to the Province. In fact it was stated that at one point no less than nineteen fanning mills were sold after the visit of the Seed Special. Too much stress cannot be laid upon the importance of having the very best seed that it is possible to obtain, for the success of the crop to follow depends very largely upon this, and if the high quality of the products made from our

grain is to be maintained co-operation is required not only of the farmer in selecting and growing his seed but in harvesting it and putting it upon the market.

The first meeting was held at Medicine Hat on January 15th. The train then proceeded to Lethbridge, then along the line to Cardston and afterwards straight north to Edmonton, returning by the Canadian Northern Railway. The following is the official programme of the stops:

Monday, Jan. 15th, 1906.		
	Arr.	Dept.
Cardston...	10 00	11.00
Magrath.....	13.00	14.15
Raymond.....	14 45	15 45
Lethbridge.....	17 00	18 00
Tuesday, Jan. 16th.		
Pincher Creek.	10 00	11.00
Macleod.....	12 00	13 00
Leavings.....	14 30	15.30
Claresholm.....	15.55	16.55
Wednesday, Jan. 17th.		
Nanton.....	10 00	11.00
High River.. . . .	11 40	12 40
Okotoks.....	13.10	14.10
Calgary.....	15.10	16.10
Thursday, Jan. 18th.		
Didsbury.....		
Innisfail.....		
Red Deer	10 00	11.00
Lacombe.....	12 00	13.00
Ponoka.	13.35	14 35
Wetaskiwin.....	15 25	16 25
Friday, Jan. 19th.		
Leduc.....	10 00	11.00
Strathcona.	11 45	12 45
Edmonton	14 00	15.00
Saturday, Jan. 20th.		
Fort Saskatchewan.	10.00	11.00
Vegreville	13.25	14.25
Vermilion	16.25	17 25
Monday, Jan. 22nd.		
Lloydminster.....	9 00	10 00

The train consisted of two coaches fitted up as class rooms. Along the sides of the car were arranged samples of the various grains in the sheaf, as well as samples of the grain itself in bottles. Other samples were also designed in tubes to show the percentage of loss through smut and weed seeds. Excellent mounted specimens of the worst weeds were also shown. It was thus possible to demonstrate the addresses in a very satisfactory manner. Besides the two coaches used for class room work there was a sleeper and dining car. By providing accommodation for the speakers it was possible to make greater time with the train.

The instruction work on the train was in charge of Mr. G. H. Clark, Dominion Seed Commissioner, Ottawa. In this he was assisted by a corps of workers consisting of Dr. James Fletcher, Botanist and Entomologist, Experimental Farm, Ottawa; Mr. W. C. McKillican, of the Dominion Seed Department, Calgary; Mr. Arch. Mitchell,

Macleod; Mr. T. N. Willing, Chief Weed Inspector, Regina; Mr. Angus McKay, Superintendent Experimental Farm, Indian Head; Mr. S. A. Bedford, Superintendent Experimental Farm, Brandon; Mr. John Miller, Secretary Territorial Grain Growers' Association, and Mr. W. H. Fairfield, Lethbridge.

The train was accompanied throughout by Mr. W. B. Lannigan, General Freight Agent of the Canadian Pacific Railway, who did everything in his power to make the trip a successful one. The Deputy Minister of Agriculture of the Province accompanied the train through the greater portion of the Province. At Strathcona the train was met by Premier Rutherford, who was greatly interested in the work.

Owing to the numerous places at which it was necessary to stop the rule was laid down that a stop would not be made at a place where less than fifty thousand bushels of grain were marketed. This cut out such places as Innisfail, Didsbury and Olds, but on application by the Agricultural Societies, Didsbury, Innisfail and Olds an arrangement was made by which the farmers at these points were to be carried on to Red Deer with the Seed Special and back again on the regular train, the C. P. R. furnishing free the transportation. However, when the train reached Carstairs it was found that there was little or no room for any one else and a stop therefore was made at Didsbury. The same thing occurred at Innisfail, the people from Olds being so many that it was impossible to carry them any further than Innisfail.

At Raymond the crowd was so great that it was necessary to hold an overflow meeting of about fifty people in the station room at the same time as the regular meeting on the Seed Special.

AGRICULTURAL SOCIETIES.

The work of the Agricultural Societies continued throughout the year with but little change. Three new societies were organized: Leduc, Nanton and Vermilion. The Red Deer Agricultural Society changed its organization to a Joint Stock Company.

There seems to be a well grounded opinion throughout the Province that the sole aim and object of an agricultural society is to hold a show, and when the show is held it is fitting that the society should rest from its labours for another year. This may have been the function of an agricultural society in some of the eastern provinces, but in this Province an agricultural society has a much wider sphere, being required to do the work of the farmers' institute system of other places. Consequently the scope of the work which can be undertaken is very wide indeed, in fact limited only by the energies of the officers and members of the societies. Note the possibilities for useful work provided in the section of the Agricultural Societies Ordinance setting forth the objects for which a society may be formed:

"The objects of a society shall be to encourage improvement in agriculture, horticulture, arboriculture, manufactures and the useful arts—

"1. By holding meetings for the delivery of lectures and for the discussion of subjects connected with the theory and practice of any of the said industries;

"2. By promoting the circulation of agricultural, pastoral, horticultural, aboricultural and mechanical periodicals, and by the formation and maintenance of a reference library on such subjects for the use of its members;

"3. By importing and otherwise procuring seeds, plants and animals of new and valuable kinds;

"4. By holding exhibitions as hereinafter provided at which prizes may be awarded for—

"(a) Excellence in the raising or introduction of live stock;

"(b) The invention or improvement of agricultural machines or implements;

"(c) The production of grains and all kinds of vegetables, plants, flowers and fruits, home manufactures and works of art; and generally for excellence in any agricultural production or operation;

"5. By offering prizes for essays on subjects relating to agriculture, including the prevention of prairie fires and the eradication of noxious weeds;

"6. By taking action to eradicate poisonous and noxious weeds and to exterminate such animals as are found to injure or impede agriculture;

"7. By carrying on experiments in the growing of crops, the feeding of stock or any other branch of agriculture or by testing any system of farming;

"8. By affiliating and co-operating with associations organized to improve live stock or encourage grain growing, dairying, forestry or fruit growing, or promote the study of plant life or the destruction of injurious insects and plants."

Were a society to live up to its possibilities it would be the most influential organization in the community. How much better this would be than to have three or four organizations struggling for existence.

The following is a statement showing the number of Agricultural Societies, their membership, the number of meetings held, the attendance at the same, and the amount of the membership grant earned by each:

INSTITUTE STATEMENT, 1906.

SOCIETY	No. members	No. of meetings	Total Attendance	Membership Grant payable 1907
Cardston.....	305	2	250	\$150.00
Deseret (Magrath).....	167	4	315	150 00
Didsbury.....	241	5	325	150.00
Innisfail.....	151	9	553	150.00
Lacombe.....	78	4	126	78.00
Lethbridge and district.....	327	4	130	150 00
Macleod.....	156	4	92	150 00
Medicine Hat.....	132	3	100	132 00
Nanton.....	120	..	..	..
Olds.....	142	2	60	142.00
Okotoks.....	120	3	100	120 00
Pincher Creek.....	39	2	60	..
Ponoka.....	120	2	105	120.00
Raymond.....	169	2	250	150.00
Vermilion Valley and Beaver Lake.....	170	..	..	150.00
Wetaskiwin.....	122	3	90	122.00
Vermilion.....	113	2	30	113 00
Leduc.....	151	2	55	150.00

AGRICULTURAL FAIRS.

There is little change in the character of the fairs held throughout the Province. In a few cases some educational features have been added but as a rule the most of the societies are following along in the old ruts. In this connection it is pleasing to be able to report that the Alberta Fairs' Association, organized for the purpose of improving the exhibitions, have a committee appointed to draft new regulations in connection with the prize lists and to make suggestions for their improvement. It is to be sincerely hoped that this committee will be able to suggest such improvements to the average prize lists that it will tend to revolutionize the Fairs held by the societies and stimulate them into new life.

A few of the societies have held ploughing matches with considerable success. The Innisfail Society has separated their stock fair from the seed grain fair, the stock fair being held in the summer when the stock are in the best possible condition and an exhibition for grain and vegetables in the fall. This plan has been followed for two seasons and has proved a decided success.

The following is a statement of the various exhibitions showing the number of entries, the amount paid in prizes and the grant earned for exhibition purposes:

EXHIBITION STATEMENT, 1906.

SOCIETY	Date of Exhibition	No. of entries	Amt. paid in prizes for sports	Amt. paid in other prizes	Exhibition Grant payable, 1907
Cardston.	Sept. 17, 18	533	\$ 175.00	\$ 657.50	\$ 413.33
Deseret (Magrath)	" 20	401	.....	548.50	365.67
Didsbury	" 26	326	.....	223.60	215.66
Innisfail	J'y 6 Oct. 12	934	.....	826.50	551.00
Lacombe	July 19, 20	...	749.15	412.25	274.83
Lethbridge and district	Aug. 16, 17	980	1,970.00	1,112.25	741.50
Macleod	Oct. 4, 5	454	922.50	732.50	488.33
Medicine Hat	Oct. 2, 3	320	.....	674.75	449.83
Nanton	Oct. 10	580	30.00	214.50	240.66
Olds	Sept. 24, 25	720	.....	430.25	288.17
Okotoks	July 17	669	.....	743.75	495.83
Pincher Creek	J'y 31 De. 13	316	.....	352.00	219.67
Ponoka	Oct. 11, 12	288	28.65	451.75	301.17
Raymond	Sept. 6, 7	375	455.00	357.50	238.33
Vermilion Valley and Beaver Lake. ....	.....	...	.....	.....	430.20
Vermilion	Oct. 15, 16	...	56.55	427.75	285.17
Wetaskiwin	July 19	234	202.00	376.25	250.83
Leduc	Aug. 21	288	158.50	290.30	193.53
Edmonton Industrial Exhibition Association	July 2, 3, 4, 5	5,941	4,621.15	4,381.15	2,922.77
Fort Saskatchewan Industrial Exhibition Association	Aug. 14	280	430.00	367.25	244.83
Inter-Western Pacific Exhibition Co., Calgary.	Jly 10, 11, 12	1,085	3,027.50	3,338.78	2,225.85
Red Deer Exhibition Association, Ltd	Oct. 9, 10	425	71.00	573.75	382.50

The following is the financial statement of the various societies and exhibitions and fairs showing the summary of the year's work:

FINANCIAL STATEMENT, 1906.

SOCIETY	Balance on hand from 1905	Mis- cellaneous Receipts	Gov't Grant paid in 1906	Total Receipts	Total Expenditure	Balance on hand	Assets	Liabilities
	\$	\$	\$	\$	\$	\$	\$	\$
Cardston	6.63	1,295.80	284.33	1,295.80	1,025.70	56.28	1,045.99	670.76
Deseret (Magrath)	51.50	576.95	51.00	679.45	1,704.84	224.20	215.30	1,050.00
Didsbury	10.19	1,869.80	688.00	2,567.99	2,473.81	94.18	4,131.05	800.00
Innisfail	8.30	9,136.48	777.66	9,928.16	9,899.00	29.16	6,241.81	1,808.75
Lacombe	14.02	2,248.45	519.16	2,779.73	2,779.73	464.47	200.00	800.00
Lethbridge and district	12.12	1,050.50	583.17	1,634.39	1,229.92	50.85	642.24	212.50
Macleod	60.72	414.50	290.83	414.50	363.65	31.67	2,776.67	1,324.19
Medicine Hat	135.17	855.65	439.50	1,280.65	1,248.98	1.18	401.18	400.00
Nanton	210.38	760.00	410.33	1,409.88	678.90	285.96	2,614.46	554.00
Olds	195.18	359.45	92.00	1,042.50	1,029.22	13.28	934.44	1,305.58
Okotoks .....	.....	950.50	261.00	1,929.28	1,829.28	.....	1,527.55	.....
Pincher Creek .....	.....	1,568.28	.....	.....	.....	.....	.....	.....
Ponoka .....	.....	.....	.....	.....	.....	.....	.....	.....
Raymond .....	.....	.....	.....	.....	.....	.....	.....	.....
Vermilion Valley and Beaver Lake .....	.....	.....	.....	.....	.....	.....	.....	.....
Vermilion .....	.....	616.60	.....	616.60	616.60	.....	.....	.....
Wetaskiwin	104.67	511.18	135.00	750.79	.....	.....	487.84	.....
Leduc .....	.....	682.17	.....	682.17	681.98	19	.....	45.00
Edmonton Industrial Exhibition Association .....	.....	16,920.35	1,000.00	17,920.35	17,481.13	439.22	.....	.....
Fort Saskatchewan Exhibition Association .....	.....	.....	.....	.....	.....	.....	.....	.....
Inter-Western Pacific Exhibition Co.	219.95	11,464.50	1,000.00	12,684.45	12,593.54	90.91	1,157.59	1,241.00
Red Deer Exhibition Association, Ltd. ....	.....	4,349.49	.....	4,349.49	4,349.49	.....	4,700.00	3,942.25

OFFICIAL JUDGES.

The Department has supplied two official judges to place the awards in the live stock classes at all the exhibitions in the Province. The Department was fortunate in securing the services of two excellent young judges for the various fairs in the persons of Messrs. H. A. Craig and W. A. Munro, both graduates of the Agricultural College at Guelph, Ontario, and members of the judging team from that college which won the trophy offered at the Chicago International Fat Stock Show, for the college team doing the best judging, and competed for by eleven other teams from as many Agricultural Colleges in the United States. The work of these two young men throughout the Province has been eminently satisfactory. Besides these two judges the services of Messrs. C. M. MacRae, B.S.A., Ottawa; A. G. Hopkins, Winnipeg; and W. F. Kidd, Simcoe, were obtained from the Dominion Live Stock Commissioner's Office at Ottawa. The system of supplying official judges to place the awards in the live stock classes has worked out exceedingly well. It does away with all local feeling that the judges are favouring any special friend.

The following is a list of the fairs, their dates and the judges officiating at each:

LIST OF FAIRS held in the Province in 1906.

PLACE	DATE	JUDGES
Edmonton.....	July 2, 3, 4, 5	} W. F. Kydd, Simcoe, Ont. C. M. MacRae, Ottawa, Ont. A. G. Hopkins, Winnipeg, Man.
Innisfail.....	July 6	
Calgary.....	July 10, 11, 12	
Lacombe.....	July 2	} H. A. Craig, Edmonton. W. A. Munro, Edmonton.
Wetaskiwin.....	July 19	
Fort Saskatchewan.....	Aug. 14	
Pincher Creek.....	July 13	} W. F. Kydd, H. A. Craig. C. M. MacRae.
Okotoks.....	July 17	
Lethbridge.....	Aug. 16, 17	H. A. Craig, W. A. Munro.
Leduc.....	Aug. 21	A. W. Foley, W. A. Munro.
Raymond.....	Sept. 6, 7	} Bryce Wright, De Winton. W. A. Munro.
Cardston.....	Sept. 17, 18	
Magrath.....	Sept. 20	
Olds.....	Sept. 24, 25	
Red Deer.....	Oct. 9, 10	
Ponoka.....	Oct. 11, 12	
Macleod.....	Oct. 4, 5	} Wm. Moodie. W. A. Munro.
Medicine Hat.....	Oct. 2, 3	
Nanton.....	Oct. 10	M. D. Geddes, Calgary; Wm. Moodie.

SEED GRAIN FAIRS.

A new departure was made this year in the interest of good seed. In conjunction with the representative in the Province of the Seed Branch of the Dominion Department of Agriculture, Mr.

W. C. McKillican, the societies held some 10 seed fairs. These fairs have been productive of much good in stimulating the interest in good seed, the one at Edmonton being the most enthusiastic one as well as the largest one in the Province.

The following is a list of the places and dates on which seed fairs were held:

Didsbury.....	Wednesday, Feb. 7th.
Olds.....	Thursday, Feb. 8th.
Innisfail.....	Friday, Feb. 9th.
Edmonton ..	Monday and Tuesday, Feb. 12 & 13
Red Deer.....	Wednesday, Feb. 14th.
Medicine Hat.....	Friday, Feb. 16th.
Magrath.....	Monday, Feb. 19th.
Raymond.....	Tuesday, Feb. 20th.
Lethbridge.....	Thursday and Friday, Feb. 22nd and 23rd.
Okotoks.....	Friday, Feb. 23rd.

IV.—TRANSPORTATION AND MARKETS.

The rapid influx of settlers and the increased amount of land brought under cultivation has meant an increased amount of grain for shipment. It has certainly been most aggravating after having grown a crop to find that the railways are practically unable to handle it. The rapidity with which railway construction can be carried out on the prairie section of the Dominion has meant such a rapid increase in the mileage that it has been impossible for the equipments to keep pace with it. The consequence is that in spite of the tremendous efforts which the railway companies are putting forward to increase their equipments, there has been a steady increase year by year in the magnitude of the grain blockades in the fall. In the Province during the year there has been a great improvement in the permanent way of the old lines of the C. P. R. In addition to this there has been the opening up of an extension of the line east of Lacombe to Stettler, as well as a rapid extension of the line running east from Wetaskiwin towards Saskatoon. There has also been an extension of the C. N. R. line to Morinville and Stony Plain from Edmonton, as well as the improvement of their main line east.

During the year the Province has been favoured with a visit of the Railway Commission before whom appeared representatives of the Alberta Farmers' Association, urging upon them matters in connection with the improvement of the shipping facilities for grain.

The Province has also been favoured with a visit from the Royal Grain Commission. Farmers at all points gave evidence and representatives of the various local Farmers' Associations, probably the strongest organization of farmers in the Province, appeared before the Commission at its different sittings and urged upon them the necessity for terminal facilities on the Pacific coast, as without doubt it will not be many years before a large bulk of the Alberta grain will be shipped to the coast and from there find passage to the European markets instead of having to go east through the great lakes via the St. Lawrence.

At the present time there is an excellent opening for Alberta products in the Orient. Our flour mills are already catering to this trade, but in order to make it a success the co-operation of the farmers will also be necessary, as at present the demand is for a low grade flour which can be made most successfully from the wheats which grow so naturally in the Province. Another market that is opening for this soft wheat is the biscuit trade. Flour required for this trade is not made from the higher grades of hard wheat, but is better supplied from the soft grades. There is thus a possibility of a division of work for the farmers. Those sections which can grow "Alberta Red" hard winter wheat should devote their energies to raising this class of wheat, while those sections which cannot raise this wheat successfully should not attempt to do so, but instead should grow the softer varieties of winter wheat so that they might be in a position to supply the market for the biscuit trade.

The same delegations also impressed upon the Grain Commission the necessity for the creation of a new grade for Alberta oats. It was shown that as a rule Alberta oats when well grown would greatly exceed the standard set by law, viz., 34 lbs. It was pointed out that at the recent seed grain fair at Edmonton a large number of samples reached 48 pounds per bushel. At Calgary the grain inspector testified that 85 per cent. of the oats passing through his hands would weigh over 43 pounds to the bushel, thus exceeding the limit of 38 pounds set for the weight of No. 1 Manitoba oats. On account of Alberta being able to produce such a superior article it was thought that a grade should be created that would do justice to the oats. The superior quality of her hard winter wheat having been recognized by a grade being created for "Alberta Red" winter wheat, it was only right her oats should be likewise recognized.

THE BRITISH COLUMBIA MARKETS FOR ALBERTA OATS.

Owing to the extremely low prices paid for oats in the fall of 1905 and the spring of 1906, a large amount of grain in the farmers' hands was not marketed. Prices were further arbitrarily reduced below what the open market called for during the year, particularly in the early fall. With a bountiful new crop in sight it was realized that unless some measure of relief was offered there was going to be lower prices still. This feature of the market situation was presented to the Department by a representative deputation from the Central Alberta Farmers' Association with the request that the Government appoint an agent to look into the possibilities of opening up a market for a large amount of this grain in British Columbia. The Department at once took this matter up and appointed Mr. D. W. Warner, the President of the Alberta Farmers' Association, a special agent to investigate the oat market in British Columbia, and ascertain what measure of relief could be secured. Mr. Warner spent a month visiting the various parts through the Province particularly those centres where lumber mills were situated, and presented the following report to the Department upon the matter:

"I beg herewith to submit the following report giving the results of my efforts in investigating the possibilities of the oat market in British Columbia, in accordance with instructions from your Department.

"The first place visited was Golden, where I found a number of small dealers, general retail dealers, and one livery man that handled oats by the car, and they would all of them handle about the same amount of this year's crop as last. The Columbia River Lumber Company are located here, and use about 30,000 bushels per year, but expect to increase operations to a considerable extent for the coming year and will need more oats than they have been using, most likely 50 cars of this year's crop. Last price paid was \$25 per ton laid down in Golden. The manager says he must have all No. 2 feed or better, free from weeds, and in good strong bags, double sewn. There were some small dealers up the Columbia River from Golden but I did not think it would be profitable for me to visit them, and I could not get their addresses from anyone in Golden that I enquired of. All dealers in Golden buy from Alberta.

"The above is a sample visit in a town and the requirements as set forth by the manager were general throughout the Province. I visited Palliser, Revelstoke, Three Valleys, Kamloops, Savona, Ashcroft, Vancouver, Barnett, Port Moody, Nanaimo, Victoria, Nelson, Trail, Rossland, West Robson, Grand Forks, Midway, Greenwood, Phoenix, Nakusp, Arrowhead, Sandon, Kaslo, Rosberry, New Denver, Criston, Kitchener, Cranbrook, Mayea, Hosmer, Spordwood, Ryan, Waterberry, Waldo, Bayns Lake, Maryville, Kimberly, Fernie, Elkmouth, Jeffary, Bayard, Baker, Benedict, Wardner, Elko, Michel, Blairmore, Coleman and Frank.

"Appended is a list of all the dealers, millmen, liverymen and others buying oats by the carload, together with all information I could gather as to prices and quantities handled. I also left with each buyer a list of the secretaries of the various farmers' organizations in the Province so that it was possible for the buyers to get in touch with those farmers who had oats to sell."

Mr. Warner's report was summarized, as there was much similarity in the reports of the various towns, and a list of the principal buyers tabulated. Copies of this list were sent to the secretaries of all the Alberta Farmers' Associations, as well as to the branches of the Society of Equity, and the Agricultural Societies. It was left for the individual farmer, or groups of farmers, to find their own market with these people for oats. At the same time the various farmers' organizations were urged to attempt shipping grain on their own account. The following is the tabulated statement:

OAT BUYERS IN BRITISH COLUMBIA.

NAME	ADDRESS	CARS USED PER Y'R
Columbia River Lumber Co.	Golden.	50
Palliser Lumber Co.	Palliser	3 or 4
Revelstoke Sawmill Co.	Revelstoke	6
Bourne Bros.	"	3
Bowman Lumber Co.	"	10
Wolseley and Lefaux	"	3
C. B. Hummer & Co. . . . .	" . . . . .	..
R. Sampson	"	1 or 2
J. C. Hutchinson	"	4
W. Fleming	"	3
Munday Lumber Co.	Three Valleys . . . . .	..
J. H. Sattemowille	Kamloops	2
Kamloops Milling Co.	"	4
Kamloops Lumber Co.	"	10
Jno. Milton.	"	6 or 7
Jno. Mosely.	"	3
F. Ellison	"	2
Hudson's Bay Store.	"	4
T. Costly.	"	1
Miles & Files	"	4
Ramsey & Phillipp. . . . .	" . . . . .	..
J. Benton	"	2 or 3
Stevens & Allen	"	3 to 5
Henry Clements.	Savona . . . . .	..
B.C. Express Co.	Ashcroft.	25 to 30
A. S. Focault.	"	4 or 5
F. S. Rosenberg.	"	8 to 10
Fred Allen	Vancouver.	15
Brown & Hawey. . . . .	" . . . . .	..
Crowder & Benzer.	"	8 to 10

OAT BUYERS IN BRITISH COLUMBIA—*Continued.*

NAME	ADDRESS	CARS USED PER Y'R
Fox Bros.....	Vancouver.....	20
Vernon Bros.....	".....	6 to 10
S. W. Keith.....	".....	15
Erixon & Son.....	".....	..
Hastings Sawmill Co.....	".....	..
Hastings Shingle Manufacturing Co.....	".....	6
Anglo-American Lumber Co.....	".....	2 or 3
Burrard Livery and Boarding Stable.....	".....	..
Barnett Sawmills Co.....	Barnett.....	..
North Pacific Lumber Co.....	Vancouver.....	..
Canadian Pacific Lumber Co.....	Port Moody.....	..
Abernethy Sawmills.....	".....	..
W. R. Johnston.....	Nanaimo.....	1000 tons
South Wellington Lumber Co.....	".....	..
E. A. Haskins.....	".....	..
Nanaimo Lumber Co.....	".....	4 or 5
Ladysmith Lumber Co.....	".....	4 or 5
Sylvester Feed Co.....	Victoria.....	20
Bannerman & Horn.....	".....	40
Scott & Peden.....	".....	15
Victoria Transfer Co.....	".....	10
R. Baker & Sons.....	".....	16
J. A. Sawyard & Co.....	".....	..
Seman Gouasson & Co.....	".....	..
Shownigan Lake Lumber Co.....	Victoria.....	..
Stanley & Barker Lumber Co.....	".....	..
Brackman-Ker Oatmeal Mill.....	".....	..
A. G. Lambert & Co.....	Nelson.....	One ton per month
Traile Lumber Co.....	".....	20
Canadian Pacific Lumber Co.....	".....	4 to 5
John A. Dewar.....	Moyie & Yimir.....	6 or 7
W. C. E. Koch.....	Nelson.....	..
Carr & Hooper.....	Trail.....	3
J. R. Randall.....	".....	5 or 6
Henderson Bros.....	Rossland.....	3 to 4
Blue & Dechamps Sawmills.....	".....	4 or 5
West Kootenay Power and Lumber Co.....	".....	5
China Creek P.O. Lumber Co.....	".....	2 or 3
Bowman Lumber Co.....	West Robson.....	50
W. J. Tierney.....	Grand Forks.....	60
McNeal & Hennegar.....	".....	24
Jef Davis & Co.....	".....	4 or 5
N. S. McInnis & Co.....	".....	6 or 7
A. E. Smith & Co.....	".....	30
Frank Buckless.....	Greenwood.....	8
Murdoc McIntyre.....	Phoenix.....	6 to 8
Hunter & Kendricks.....	".....	..
Duncan McDonald.....	".....	..
Morin & Thompson.....	".....	..
Bloomfield & Garrison.....	Midway.....	..
Geo. E. Capley.....	Greenwood.....	12
Bowman Lumber Co.....	Nakusp.....	..
Big Bend Lumber Co.....	Arrowhead.....	10 or 12
Lamb & Watson Lumber Co.....	Arrowhead.....	8 or 10
J. W. Sanders.....	Sandon & Kaslo.....	12
Jalland Bros.....	Sandon.....	..
F. J. Gallager.....	Roseberry.....	4
T. H. Hoben.....	New Denver.....	2 or 3
J. B. Smith.....	".....	2 or 3
W. E. Cook.....	Kaslo.....	3
McGregor & Byers.....	".....	4 or 5
James Shears.....	".....	4 or 5
George Cartwright.....	Creston.....	5 or 6
T. W. Leask.....	".....	5 or 6
C. E. Miller.....	".....	2 or 3
Faas & Crawford.....	".....	12

OAT BUYERS IN BRITISH COLUMBIA—*Continued.*

NAME	ADDRESS	CARS USED PER Y'R
S. A. Spears	Creston	.....
Laurie & Foster Lumber Co.	"	3
G. Laurive	"	2
T. A. Polsen Lumber Co.	Kitchener	10 or 12
King Lumber & Milling Co.	Cranbrook	22
East Kootenay Lumber Co.	"	.....
Porto Rico Lumber Co.	Moyie	.....
Robinson & McKenzie Lumber Co.	Cranbrook	2 or 3
Lynch & McKenzie Lumber Co.	Hosmer	.....
Sparwood Lumber Co.	Sparwood	.....
Ed. Little	Ryan	5 or 6
Watts Lumber Co.	Waterberry	.....
Baker Lumber Co.	Waldo	5 or 6
Adolph Lumber Co.	Baynes Lake	4
Grey & Doyle	Cranbrook	6 or 7
Paul & Henty	"	1
St. Marys Livery and Feed Stable	Marysville	3
A. P. Shenette	"	1 or 2
Kimberly Lumber Co.	Kimberly	5 or 6
A. C. Bawess	Cranbrook	.....
Elk Lumber Co.	Fernie	30
Scott & Boss	"	3 or 4
Fernie Lumber Co.	Fernie	7 or 8
Fred Hanley	"	2 or 3
Frits & Woods	"	5 or 6
Crows Nest Trading Co.	"	.....
Dobson & Williams	"	3 or 4
Fernie Cartage Co.	"	4
Crows Nest Pass Coal Co.	"	15
North Star Lumber Co.	Cranbrook	30 to 40
Crother Lumber Co.	"	5
Staples Lumber Co.	Bayard	6
Standard Lumber Co.	Baker	8
Mayook Lumber Co.	Benedict Siding	5 or 6
Crows Nest Pass Lumber Co.	Wardner Station	4 or 5
Thorp Lumber Mills	Wardner	.....
North Star Lumber Co.	Elko	.....
North American Land & Lumber Co.	Fernie	15 to 20
Hugh Cameron	Coleman, Alta	3 or 4
A. P. McDonald	"	3
International Coal and Coke Co.	"	5 or 6
H. P. W. McLaren	Blairmore, Alta	4 or 5
D. McFarland	"	4 or 5
Jas. W. Ashdown	Frank, Alta	1 or 2
Lines Mercantile Co.	"	2
F. W. Wild	Blairmore, Alta	.....
Jos. Hardman	"	2
Canadian American Coal & Coke Co.	Frank, Alta	2

As a direct result of the visit of Mr. Warner to British Columbia the price of oats in the Province was advanced from two to four cents a bushel, and as a result of the direct shipment to Winnipeg, a further advance of from two to four cents was obtained. I can quite conceive that one of the best works which the Department can do is to educate the farmers as to how they can better themselves. The farmers of the Province need to know, and in a very special manner, the law with regard to the shipping of grain, as laid down in the Dominion Statutes governing the grain trade. Once they are in possession of this knowledge, and of the routine to be followed it places them in an independent position. If the elevator at any

town does not offer what is considered a fair price for grain, they are then in a position to make application for a car and ship it themselves. On the other hand, once the elevator men know that the farmer understands how to ship his own grain, and thus obtain the full benefit of the open market, they will be pleased to offer the very best prices that it is possible for them to do in order to secure the grain.

V.—IMMIGRATION AND COLONIZATION.

Owing to the Dominion Government having immigration agents in many countries, it is not thought advisable for this Department to undertake work along similar lines because the Province is thus so well advertised that it would be useless to duplicate the work. The Department has, however, had a number of enquiries for literature relative to the various possibilities of the Province along the line of grain production, also as to the policy of the Department in regard to educational matters so far as farm life is concerned, that there is need for some literature in respect to this. The only literature secured, however, was an excellent description of what the Department aims to do for the farmer. It appeared in one of the Winnipeg papers and was distributed to enquirers.

Definite knowledge as to the yields of the various grains in the Province is given in Crop Bulletin No. 1, giving the yields for 1905 of grain as obtained from the threshers. The first edition of this bulletin was for 6,000 copies. This was exhausted in a month's time and a second edition of 5,000 issued, and later a third edition of 5,000 more. To this bulletin was added the weather statistics which made it a very desirable one to place in the hands of intending settlers.

At the request of the officers of the Dominion Exhibition at Halifax it was decided that it would be to the advantage of the Province to make an exhibit there of its natural resources. After it was decided to send an exhibit the time was somewhat limited in which to get it together. This work was made particularly difficult because the exhibition being held from the 2nd to the 14th of September it was necessary for the grain to start from here almost before it was in good shape to show to advantage. The work of collecting the exhibit was placed in the hands of Mr. Frank Webb, of Edmonton. He visited the boards of trade in the Province and in co-operation with them was able to get together a very creditable exhibit. Mr. E. L. Richardson, of Calgary, was engaged to assist Mr. Webb and got together an excellent exhibit from the southern portions of the Province. He was given charge of the setting up of the exhibit and was particularly fortunate in his display arrangement at Halifax. The unique feature of his exhibit was a field of "Alberta Red" wheat. Over it was a sun made of a red card with a halo made of wheat heads, and under it the words, "He always shines in Alberta." This proved a great hit, and though the exhibit was lacking in many respects, yet its unique features drew more attention and comment than any other exhibits much more elaborate in character and upon which a large amount of time had been expended.

The thanks of the Department are due to the officers of the various Boards of Trade for their assistance in getting together the exhibit.

VI.—NOXIOUS WEEDS AND INJURIOUS INSECTS.

The destruction of noxious weeds is a most important work in this Province, for the reason that the dry falls so necessary for the safe harvesting of our crops, present but little opportunity for the destruction of weed seeds, consequently all seeds that fall after harvest lie on the ground until spring and are ready then to germinate and choke the growth of grain. It is, therefore, an important work of the Department to see that vigorous measures are enforced looking towards the destruction of noxious weeds. With this end in view a Chief Inspector of Weeds was appointed in the person of Mr. Archibald Mitchell, who had been acting as Plantation Inspector for the Dominion Forestry Department for a number of years. As his work took him in all parts of the Province he was thoroughly familiar with local conditions, and in a large measure with the prevalence of weeds. He has taken hold of the work with a firm grasp and I am pleased to report that his work for the season has been eminently satisfactory. The Province has been laid off into weed districts and 43 inspectors were at work last season. He has visited all these inspectors, giving them instructions, as well as attending practically all the fairs in the Province with an exhibit of weeds in order to more firmly impress on farmers the necessity of being able to identify weeds and then to know how to destroy them.

The following is the report of the Chief Inspector of Weeds, covering his work for the season:

REPORT OF THE CHIEF INSPECTOR OF WEEDS, MR. ARCH. MITCHELL.

I have the honour herewith to submit the following report of my work as Chief Inspector of noxious weeds.

I joined the Department on April first and at once set about dividing the Province into districts suitable for inspection, and to secure the appointment of a local inspector for each of these districts.

In 1905 there were only fifteen weed inspectors, but settlement had been taking place so rapidly that it was felt that this number was far from being able to meet the conditions of the country and twenty-seven new ones were therefore added and the whole system re-organized.

The work of inspection was begun the first week of July, and lasted 12 to 35 days. A total of 1,260 days were occupied in this work and in that time 6,965 farms were inspected, and of these, 2,723 or 39% were reported to be infested more or less with noxious weeds. A total sum of \$5,179.13 was expended on the destruction of noxious weeds.

At present practically the only power in the hands of the weed inspectors, when they find a place infested with weeds, is to order their destruction after they are growing in a crop. This means that

the crop has to be destroyed as well as the weeds, and seems to be somewhat of an unnecessary hardship. If it were possible to point out to the farmer the advisability of conducting his operations so that the weeds would be destroyed before the crop matured it would be coping with the weed question at the right end and be very much more to the advantage of the Province.

With a view to attempting something of this sort, each weed inspector was provided with a note book in which he recorded the most weedy farms in his district, the intention being to send each inspector out for about a week just before work begins in spring, to discuss with those farmers having dirty places, the value of spring cultivation previous to seeding, the harrowing of the growing grain and the place summer fallowing occupies in the destruction of weeds. Of course particular stress would be laid upon the advantage of these measures in coping with their weeds.

Ball Mustard.—The most widely spread weed is ball mustard, and it is spreading very rapidly throughout the Province. It is especially plentiful in the older districts in the north and from there seems to be spreading rapidly to the newly opened settlements through feed and seed purchased from these districts.

Stink Weed.—This is probably the worst weed in the Province, and although it has been reported from several farms, it is fortunately only in very small patches. The places where it occurs have been noted and special steps will be taken to prevent its spreading.

Russian Pig Weed.—Which was reported as having been found only at one place in 1905, has this year been seen at several points all along the line of the C. & E. and part of the main line of the C. P. R. Last year there must have been quite a number of these points pretty badly infested but they had no doubt been overlooked.

Russian Thistle.—A special inspection was carried out in the month of November from Leavings south, and east to the boundary line. This district was found to be badly infested with Russian thistle and tumbling mustard. Russian thistle has been in the Province since 1899 and probably before that, but no special steps have been taken to check it till this year. It is now pretty widely spread. Two cases have been reported, one from near Josephsburg and one from Spring Coulee, where the weed was introduced through seed brought in from the United States about three years ago. Possibly the owners did not know the plant when they saw it and at any rate it has spread from these places over quite a far stretch of country. As it has proved to be a very bad weed in parts of the States, particularly in the drier ones, it was felt that a special effort should be made to check it, and therefore all the inspectors from Leavings south and east were turned out for from 12 to 20 days in the month of November. A great many people in those districts were not familiar with the plant and the very fact of this inspection being held at an unusual time of the year will help to impress upon them the imperative necessity of destroying it whenever seen.

The presence of Russian thistle has also been reported from near Stettler and near the railway a little west of Vegreville. Probably the seeds of these were brought in by settlers' effects, or in feed

used during the construction of the lines. They were promptly destroyed by the weed inspectors, who have also been instructed to keep a sharp lookout for any appearance of the weed in future.

Tumbling Mustard.—Another troublesome weed which is making rapid headway in the south country is tumbling mustard. This is a very prolific weed, sometimes having as many as one million and a half seeds on a single plant. It spreads very rapidly as it readily breaks off and rolls over the open prairie before the wind. There are quantities of it now where two or three years ago it was scarcely to be found.

Tumble weed, *Amarantus albus*, has also increased very rapidly in the south of late years, and as its peculiarities are very much like those of tumbling mustard it would be very much to the advantage of the Province if it were placed upon the list of noxious weeds. These two weeds also received attention when the special inspection was made for Russian thistle.

Institute Work.

During the summer most of the fairs in the Province were attended with a tent, in which were displayed mounted specimens of the various weeds in Alberta. At each place specimens of the weeds peculiar to the district were invariably obtained from the fields or along the railroad track. The tent was well patronized at all the places by farmers and others interested, and the lines taken up for discussion were chiefly identification of weeds and methods to be adopted for their destruction.

Between the 27th of July and 14th of August I made a trip northeast of Edmonton through the Galician settlement, accompanied by Messrs. H. S. Pearson and W. A. Munro, of the dairy division. The places visited were Bruderheim, Star, Lamont, Wostok, Andrew, Whitford, Soda Lake, Warwick, Vegreville, Mundare and Fort Saskatchewan and at several of these two-day meetings were held.

The attendance was usually very good, with a total of over 300 for the trip. These people have a beautiful district and their crops looked very well indeed. They seemed very pleased to have the opportunity of learning something about the weeds and how to identify them. At each place pressed specimens of weeds were exhibited and also freshly gathered ones from the neighborhood. The best methods of eradication were explained and as all addresses were made plain to the people by means of an interpreter, it is to be hoped that good results will follow this visit.

Poisonous Plants.

A good deal of damage was reported in the spring from the district around Cooking Lake and from various other parts of Northern Alberta, through cattle eating the root of water hemlock or *Cicuta occidentalis*. By your instructions the writer went with Dr. Wainwright, V. S., of Strathcona, out to Salisbury school district to examine this plant and to confer with the farmers there about controlling it.

The water hemlock is found chiefly in the northern parts of the Province and may be seen in the sloughs and in the ditches by the side of the railway as far south as the brush country extends. It is found chiefly on the edges of sloughs, in the mud between the water line and the dry land. It being the first thing that is green in the spring, the cattle see it on their way for water and readily eat it. It is also found on the drier land, but does not seem to give so much trouble there, probably because the grass is beginning to grow just about as soon as it is.

Several reports have been received to the effect that cattle had been seen eating the leaves of the mature plant with impunity and it would therefore appear that the young tender leaves in the early spring and the roots which are easily pulled up from the mud in the sloughs are the sources of the trouble. The plant is one which is fortunately very easy of identification, and as long as every farmer is able to recognize it and takes pains to either root it out from his land or to fence his cattle away from it in early spring, there should be little or no loss from this source.

The roots of the plant are easily recognizable by being thick and fleshy and on being cut open are found to be divided into separate chambers by a number of horizontal membranes. The flower stem is from two to four feet high and is marked with a number of purple stripes. Its flower system is shaped somewhat like an umbrella and is white in colour. The leaves are a dark, glossy green, very much divided into segments about half an inch to one inch in width and sharply serrated along the edges. The veining of the leaf segments is very peculiar and is one of the most important means of identification, since the nerves or veins of the leaf do not appear to be carried to the extremities of the points of the serrations, but only to their inner angles. On comparing this characteristic with the leave of the strawberry or any other plant with a wavy or serrated edge, the difference will at once be apparent, as it is customary in most plants for the veining to be carried to the extremities of the points of the serrations rather than to the bottom of the notch or serration.

The following is the report made after the visit to the affected district:

"According to your instructions on April 28th, the writer drove out with Dr. Wainwright, veterinary surgeon, of Strathcona, to Mr. Bell's place in the affected district. Notice had been given beforehand of the intended visit and sixteen men were waiting. On inquiry it was found that the actual loss was much less than had been reported. Nobody could be found who had actually seen an animal eat the plant and none who, after opening an animal recently dead and presumed to be poisoned, had found pieces of the root in the stomach.

"With four of the men a visit was made to some of the sloughs and many of the roots reported as being the cause of the trouble were found. The writer is unable to say definitely that this root is that of *Cicuta occidentalis* or water hemlock without seeing the whole plant in flower and perhaps in seed. There are, however, several particulars which point towards its being this plant. The plants are growing quite close to the water in the sloughs and one gets into pretty soft mud to reach them. They are easily pulled out by hand.

“Remedies Suggested.—If the roots are the cause of the trouble it should not be such a hard matter to pick and destroy the most of the plants around the sloughs. They are easily pulled, and a common garden rake would probably be an excellent implement to root them up with. They could be piled in heaps and either burned or buried deep enough to prevent them growing. One man stated that he had cleared it all out of his quarter section. It took three of them a day to do it. Some of the sloughs are badly infested,—the two examined were said to be the worst in the district. Two men reported having examined one slough and found only two plants.

“A little co-operation among the farmers would soon clear a district or at least a portion of it and as the root is said to be dangerous only in the spring, their animals could be herded away from sloughs known to be infested. The herding would only be necessary for from six to eight weeks for as soon as the grass was plentiful the temptation on the part of the cattle to eat the plant would be removed. On inquiry it was found that little or no farming is being done there, and from the rolling appearance of the country is not likely to for some time, consequently herding the stock would not interfere with seeding operations. Another plan would be for the farmers to put up enough hay to carry their cattle over till the good grass came.”

The following is the report of John C. Wainwright, V. S., Strathcona:

“As requested, I accompanied Mr. A. Mitchell, Chief Inspector of Weeds, on April 28th, to hold an investigation on the suspected poisoning of cattle by water hemlock or *Cicuta occidentalis*. A large majority of the residents of that district were met, and investigation would go to show that there were not more than fifty cattle died there during the last two years of suspected poisoning, and that at the present time there was no loss of life whatever. I would also state that near the slough visited the *Cicuta occidentalis* grew in great profusion and that the residents stated that this was the worst place in the district for this weed, and that in some places very little of it could be found.

“As a preventative, the following suggestions are made:

“1. Feed and water the animals properly.

“2. Keep the animals out of the sloughs.

“3. Fence the most dangerous sloughs.

“4. Keep the land clear of poisonous weeds, (This I understand has been done in some cases.)

“I also consider that it would be in the interests of those concerned to have *Cicuta occidentalis* placed under the Noxious Weeds Act, as then the weed inspectors would see that farmers used every effort to have this dangerous weed destroyed, and thus put an end to any further trouble in the future.”

One of the roots collected was sent to Dr. G. A. Charlton, Bacteriologist at Regina, and the following is his report on the same:

“I beg to acknowledge receipt of your letter of 2nd inst., also the package containing *Cicuta* roots. I have asked Mr. Willing, the Chief Inspector of Weeds, to identify this collection as there are several species of *Cicuta*.

"The poison which these plants contain is called cicutoxin, a non-crystallizable substance, probably a glucoside. This poison has been isolated and studied by German toxicologists, but not, so far as I know, by English or American workers. The extraction of the poison is not difficult, but the process is tedious and lengthy. We have the requisite equipment for such an investigation, with the exception of the animals on which to test the physiological action.

"It consists of .2% of the fresh plants. It is an extremely active poison, resembling Conium in its action. .75 grains per 2.2 lbs. of body weight has been found to be the minimum fatal dose for cats. The dose for other animals does not appear to have been ascertained.

"To save time allow me to quote from the literature regarding this plant: *Cicuta* grows in moist places, lowlands and marshes. The plant has a strong penetrating odor of carrots. Leaves compound, springing from the root. Stem rigid, hollow. Flowers white, appearing in midsummer. After flowering the plant dies down. Roots fleshy, consists of two parts. The main part is a vertical root stock one to six inches long by one to two thick, divided by horizontal partitions into small chambers, which are filled with a yellow, disagreeable smelling juice which contains the active principle of the plant. The other part of the root consists of solid, fleshy fibres, which grow out from the root-stock just below the surface of the ground and send down rootlets.

"All parts of the plants are intensely poisonous to man and beast. During the late winter and spring, the roots and fresh shoots are particularly virulent. Cattle trample the roots in the marshes and are poisoned by drinking the water which has dissolved out the plant juice.

"It has been found by experiment that a piece of root the size of a walnut quickly killed a cow. The first symptoms appeared within 20 minutes after eating the root. Four hours later the cow was dead. Men are affected fatally in from 3 to 16 hours.

"*Symptoms.*—The first symptoms appear in animals in 15 to 30 minutes after eating the plant. The symptoms which have been noted are, uneasiness, followed by twitchings about the nose and mouth. Watery eyes, much perspiration, high temperature, continued urination, and violent convulsions ending in death. The animals soon become wild and unmanageable. In other cases bloating, increased flow of saliva, severe pain in stomach, and widely dilated pupils, have been noted.

"Post mortem appearances reveal little. They are congestion of the brain and lungs and an inflammatory condition of the mucous membrane of the stomach. Death is supposed to be caused by paralysis of the nerves controlling the respiratory organs.

"*Prognosis.*—When an animal has eaten a sufficient quantity of the plant to give rise to severe symptoms, the outlook for recovery is decidedly unfavourable, because the development of the more severe symptoms is usually so rapid that treatment will be too late. Besides, the animals are frequently so wild and unmanageable, that it is impossible to do anything with them.

"Treatment.—Permanganate of potash in doses of 30–50 grains for cattle, 15–20 grains for horses and 5–10 grains for sheep, should be administered at once to neutralize any unabsorbed poison. Dissolve each dose in a quart or more of water. If a quantity of alum equal to the weight of the permanganate of potash is added to the solution, the action of the latter is prolonged.

"The constitutional symptoms are to be met by hypodermic doses of morphine, cattle and horses 3 to 8 grs., sheep $\frac{1}{2}$ to $1\frac{1}{2}$ grs. Atropine would be valuable as a stimulant of the respiratory nervous systems.

"Chloral hydrate may also be of service given by mouth, if no permanganate of potash has been administered, or by rectum when it has been given. Dissolve in considerable water (quart). Dose horses and cattle $1\frac{1}{2}$ to $2\frac{1}{2}$ ounces, sheep 1 to 3 drams.

"While the animals are under treatment they should be kept as quiet as possible.

"*Preventative measures* such as eradicating the plant or excluding the animals from those localities in which the plant is known to be will be more effectual than treatment."

Injurious Insects.

Cutworms.—Several species of cutworms were very plentiful all over the Province in the spring and a great deal of damage was done. As soon as possible after it became evident that this damage was taking place, a newspaper bulletin was sent to all the papers as well as the agricultural journals circulating in the Province, drawing attention to this pest and giving instructions how to deal with it. The following is a copy of the bulletin

Damage by cutworms to grain and garden crops having been reported from various parts of Alberta, the Department of Agriculture at Edmonton makes the following suggestions towards combating the attack:

"Cutworms are the larvæ of certain moths and their habit is to feed at night and remain an inch or so under the surface of the ground in the daytime. A thorough harrowing will turn many of them up to the surface. If this is done on a warm, sunny day, and the harrowing is followed by a roller, a good many of the creatures will be crushed.

"For gardens, beetfields and other small areas, Dr. Fletcher, Botanist and Entomologist of the Dominion Experimental Farms, recommends placing here and there, bundles of any succulent weed or other vegetation, such as alfalfa, which have been dipped in a mixture of paris green and water, one ounce to a pail. The cutworms eat the poisoned plants, then bury themselves and die. In hot, dry weather these bundles should be put out after sundown and a shingle may be placed on each to keep it from wilting during the daytime.

"Cabbages and other garden transplants should be planted with a piece of stout paper or tin around them. This prevents the caterpillars getting to the plants. If paper is used, it should be wrapped loosely around the stem, just above the root so that it

will not interfere with the growth of the plant, and may be easily lifted away after the plants are established and the danger of attack is over. Hand-picking or digging out the cutworm whenever a plant is seen to be cut off should of course always be practised.

"Dr. Fletcher says the most remarkably effective remedy against cutworms is poisoned bran mash. This is made by mixing a half to one pound of paris green with fifty pounds of slightly moistened bran.

"To prepare it, dampen a little of the bran with water containing a little sugar, dust on some of the paris green, and go on adding bran, paris green and water till the mixture is all made up. When ready for use it should run easily through the fingers without adhering. It takes about two and a half gallons of water to fifty pounds of bran and the water should have about two pints of sugar dissolved in it.

"In gardens, a little of this can be sprinkled by hand around such plants as are liable to attack. When crops are planted in rows, a convenient way is to make the mixture rather dry and then distribute it by means of a Planet Jr. or other wheel seeder.

"In growing crops, the mixture can be distributed by means of a shingle, and can be easily thrown to a distance of twenty feet.

"Care should be taken to prevent domestic animals having access to the poisoned bran; although cases of injury from the mixture are extremely rare, and indeed it is questionable if there is really an authentic case on record of poultry being poisoned by this remedy, yet some precaution is always wise."

At first some farmers were skeptical as to the value of sowing the mixture of paris green and bran on the surface of the ground, but after one or two had tried it, and it was found to be of some benefit, the practice became fairly well adopted.

Attacks on Sugar Beets.—Another source of loss to the Province this year from insect attacks, has been in connection with the sugar beets in the Magrath, Raymond and Stirling districts. There were three different forms of attack and the first one was probably the ordinary cutworm. These attacked the sugar beets as they germinated and in some cases no fewer than three seedlings had to be made before a good stand of plants could be obtained. Some of the larger growers sowed the paris green and bran mixture between the drills as they sowed the beet seed, and only after doing this were they able to get a stand of beets.

About the end of August the beet fields were sadly damaged by the caterpillars of the sugar beet web worm *Loxostege Sticticalis*. This is an insect which frequently has three generations in one year and probably this is the case in Alberta as the season is usually pretty long. The parent insect is a small light grey moth which deposits its eggs on the under side of the leaves of the beets, and in about six or seven days afterwards the small caterpillars hatch out and immediately commence eating the underside of the leaves. They do not touch the upper sides at first, and their presence is often quite unsuspected till they are nearly half grown and demand a much greater supply of food. They then begin to eat all of the leaf but the midrib. As they themselves, as well as their depredations, at

once become apparent, the belief is often quite common that they made their appearance in a single night from a different part of the country.

Spraying has been carried on by the Knight Sugar Company and several of the larger growers, with varying results, owing chiefly to the fact that the caterpillars hatch out on the lower side of the leaves and are difficult to get at with a spray. Probably an attachment to the sprayer of a bent nozzle carried close to the ground to throw the spray upward would be of greater benefit, especially if the paris green were mixed with a soap wash or kerosene emulsion. The leaf of the beet is very smooth and the emulsion would enable the paris green to stick to the leaf better and thus be more readily eaten by the caterpillars.

About the end of October the web worm crawls down into the soil about two inches and spins a silken chamber for itself in which to spend the winter. These may easily be found by brushing off the surface layer of soil to the depth of about an inch when the cocoons may be seen sticking up out of the soil like little black pegs or pieces of root. Plowing the soil deep in the fall and burying the cocoons has been found beneficial and has been recommended through the newspapers in the sugar beet districts in bulletin given below.

Another insect which has been doing a lot of damage to the beets is the larvæ of a moth which has been identified by Dr. Fletcher, as probably *Paragrotis auxiliaris*. This caterpillar is a true cutworm and spends its days under the surface of the ground and comes out at night to feed on the leaves and also the upper parts of the beets, and has no doubt been the cause of a great deal of damage. They are very plentiful, and after dark, by the aid of a lantern, could be seen in thousands creeping rapidly from place to place or feeding on the leaves, and were even found creeping into houses, situated near the beet fields. A number of these specimens are being kept in the offices and have been found to be badly infested with the larvæ of a well known hymenopterous enemy of cutworms, identified by Dr. Fletcher as *Meteorus vulgaris* and also with a form of fungous disease. These are the usual means by which nature keeps such attacks under control for as the insects increase so do their enemies, till at last the latter become so numerous that the insects are nearly all destroyed and the attack dies out, and probably there will be very little damage from cutworms among the beets next spring. But for these enemies it is probable that most of the cutworms would live over winter till spring and do considerable damage again to the beets as they begin to grow. The following newspaper bulletin was issued drawing attention to these pests in the beet fields.

Sugar Beet Web Worm.

"There are at least two kinds of caterpillars attacking the sugar beets at Raymond this fall. Specimens of these have been forwarded to Dr. Fletcher, Ottawa, Entomologist and Botanist of the Dominion Experimental Farm, and he has identified one as the sugar beet web worm, *Loxostege sticticalis*, and the other as probably *Paragrotis auxiliaris*. The web worm is well known in the southern Alberta

beet district, having done some damage there last year. It is the larvæ of a small light grey moth which makes its appearance about May and July or August. Its natural food is chiefly lambs quarters and other plants of the same order as the beets. It is reported from several districts in Manitoba in 1903 and an account of its appearance there may be found in Dr. Fletcher's report for that year.

"At the present time the attack is about over but the insects are not dead by any means, for they can be found in thousands in the soil encased in their silken cocoons. The earth sticks closely to these and they just look like little pieces of stick or root about $1\frac{1}{2}$ to 2 inches long. They are usually placed upright in the ground and on lightly brushing away the surface soil to the depth of an inch or so, may be found sticking up like so many little pegs. The caterpillars live in their cocoons till about May of the following year, when they pupate and emerge as moths. There are two generations per year and it is during the second that the greatest amount of damage is done and it is then that spraying may be beneficial. At this season and in the early spring immense numbers of the creatures may be destroyed by deep plowing, but it is of course impossible to destroy every one in this way, a sharp lookout should be kept for the appearance of the small larvae on the underside of the leaves next May and June, when they can be sprayed.

"The other caterpillar, *Paragrotis auxiliaris*, is a cut worm and is to be found just under the surface of the soil. It has been doing considerable damage to the upper parts of the beets and no doubt also to the tops as well. They are most active at night and may be found travelling about in thousands if searched for with a lantern.

"Their destructive period for this year will cease as soon as the beet crop is lifted and many may be destroyed by the deep plowing mentioned above. Thousands at present are leaving the beet fields and no doubt many will hibernate under heaps of rubbish, straw, stones, etc. These will appear in spring in good time for the young beet crops.

"*Remedies.*—Since great numbers are moving off the beet fields on to the grass, furrows should be plowed with the steep side next the grass. The worms will find it difficult to climb up and will turn and crawl along the furrow, and if small pits about six inches deep are dug every 20 feet or so, great numbers of them will be found every morning when they can be destroyed. Rubbish and heaps of refuse and weeds in the vicinity of the fields should be removed or destroyed and in the early spring the greatest benefit will be derived from the sowing of the paris green and bran mash, which has already been found so efficacious by some of the best growers.

"The bran mash is made by moistening 50 pounds of bran with sweetened water and gradually dusting in a pound of paris green, stirring the while. It is sown on the surface of the ground and some good might be done at this season by the use of this mash, as the creatures are very fond of it."

VII.—GAME.

A few amendments were passed at the session of the Legislature with reference to the Game Ordinance. The chief one of these was the creating of a Deer Park to the south-east of Fort Saskatchewan for the preservation of elk and deer. A game guardian in the person of Mr. E. Simmons, of Fort Saskatchewan, was appointed whose special duty it was to look after this game preserve and later in the year Mr. Benjamin Lawton, of Lacombe, was appointed Chief Game Guardian. The following is the report of the Chief Game Guardian:

REPORT OF THE CHIEF GAME GUARDIAN, MR. B. LAWTON.

I submit herewith particulars respecting the enforcement of the provisions of the Game Ordinance for the year 1906:

The number of game guardians in the Province on January 1st, 1907, was 218. In addition to this number all members of the Royal North-West Mounted Police are also Game Guardians and they have done considerable good work in enforcing the provisions of the Game Ordinance. The present system of enforcing the provisions of the ordinance has not proven satisfactory as the majority of the guardians argue that, there being nothing in it for them, it is not to their interest to lay information against and prosecute their neighbor, thus making an enemy of him alongside of whom they expect to live for years. In some cases guardians state that they are afraid to lay an information for fear of being burned out.

A guardian has been appointed on salary, whose duty it is to protect the game in the Island Park Preserve. This has been done very satisfactorily and the game laws have been observed in that district better than formerly.

On account of complaints which were received from Banff and vicinity as well as other parts of the mountains with respect to the killing of game by Indians and white men, it was considered advisable to place a man on salary for a short time. The results accomplished by so doing have been so satisfactory that it was considered advisable to extend his engagement. It will be impossible for one man to properly cover all the territory in the mountains which it is considered advisable to have patrolled for the purpose of protecting the game and it is therefore recommended that an additional guardian be engaged for this purpose. In order to protect the game in the mountains and the foothills it will be necessary to follow closely the movements of certain individuals belonging to the Stoney tribe of Indians.

A Provincial Fish and Game Preservation Association has been formed with headquarters at Calgary. The object of this association is to have the members act as an auxiliary force by assisting the game guardians in their work of protecting the game and enforcing the game laws. The association has signified its intention of co-operating with the Department with the above object in view.

Requests have been received from different parts of the Province asking for better protection of prairie chicken. Some advocate a close season for one, two, or more years and others think the shortening of the open season would be sufficient. From whatever cause it is an acknowledged fact that this bird has become exceedingly scarce in all parts of the Province and it is advisable to take such action as would ensure an increase in their numbers.

Ducks and geese have been reasonably plentiful and deer in many localities are increasing in numbers. The cutting out of spring shooting of ducks, geese and swans at the last session of the Legislature was an exceedingly good move but not being assented to until May 9th did not have effect last spring. The enforcing of this provision during the coming spring will undoubtedly add to the duties of the game guardian.

In order to more effectually enforce the provisions of the Game Ordinance the placing of more guardians on salary is recommended. It would be the duty of these guardians to patrol certain districts and to act on information furnished by the local guardians. They might also be appointed prairie fire rangers for the purpose of enforcing the provisions of the Prairie Fire Ordinance. This would give better results in the enforcement of both ordinances.

VIII.—POULTRY.

The Department was fortunate in securing the services of Mr. A. W. Foley to place the awards at the poultry shows held in Strathcona and Lethbridge, and to address institute meetings throughout the Province. Mr. Foley's work proved so acceptable that he was invited back again to exhibit poultry appliances at the leading summer fairs, and to demonstrate their uses. His work again proved so successful and he was able to demonstrate the suitability of this Province for raising poultry and to point out the great need there was for some effort on the part of the farmers of the province to supply the demand for poultry and eggs which at present has to be met from points outside the Province. Careful estimate shows that poultry products amounting to the value of nearly \$400,000 are annually brought into the Province. This should not be. There is no valid reason why Alberta should not produce all the poultry and eggs she needs and have some to spare for the British Columbia markets where poultry products always command a very high price.

In order to demonstrate in a practical manner the proper method of fattening poultry arrangements were made for him to open five poultry fattening stations at which birds would be fleshed according to the most approved method, dressed and placed upon the market. This work has been very successful and it is with pleasure that the following report upon it is presented:

REPORT OF THE POULTRY SUPERINTENDENT, MR. A. W. FOLEY.

I beg to submit herewith a report of the work of the Poultry Branch from July 1st to December 31st, 1906.

During the early summer months educational work was conducted throughout the Province principally in connection with the following fairs and exhibitions: Edmonton, Innisfail, Calgary, Pincher Creek, Okotoks, Wetaskiwin, Lacombe, Fort Saskatchewan, Raymond, Leduc, Olds and Red Deer. A suitable tent was provided in which the educational work was conducted. On exhibit in the tent at the above fairs was a regulation fattening crate showing the most improved methods of feeding poultry for marketing purposes, with charts giving full information on fattening rations and showing actual results that have been obtained by this system of fattening; models of brooder houses and colony coops; self-feeding hoppers; charts illustrating suitable styles of poultry houses; and trap nests and charts showing the actual returns from individual layers in pens where the trap nests were used. The writer was personally in attendance to explain the exhibits mentioned above and to give information on poultry matters in general to one and all who visited the exhibit in quest of information.

On your instructions a poultry bulletin is under preparation to meet the demands of inquirers for up to date information pertaining

to poultry. This bulletin will be issued under the name of "Advanced Methods in Poultry Farming" and will deal in a very general way with the most improved poultry houses and fixtures, natural and artificial incubation, hopper feeding, dry feeding and crate feeding of poultry, 'strain building and feeding for egg production. It will be illustrated with some 50 photogravures and drawings.

Having received instructions relative to the organizing of a few fattening stations with the object of demonstrating in a practical way what might be done in crate feeding to procure a suitable quality of poultry to meet the requirements of the market, the creameries under government control at Wetaskiwin, Lacombe, Red Deer, Innisfail and Olds were visited. The object the Department had in view was explained as well as the conditions upon which the Department was prepared to organize and operate the demonstrative work. The regulations and conditions, as devised by the Department, were readily accepted by the patrons of the creameries at the places visited, and arrangements to carry on the work were at once taken up. Suitable buildings in which to fatten the poultry were either rented or erected and equipped with the necessary fattening crates. Rations were secured and suitable persons were placed in charge of the fattening demonstration work. Expert killers and pickers were also secured to prepare the poultry for market. It has been proven that the most successful as well as the most economical ration for fattening poultry consists of skimmed milk or buttermilk together with chopped oats. The creameries were chosen because at them it was possible to secure a liberal supply of buttermilk.

The fattening crate is an open slat box divided into three compartments each two feet long with a trough in front and set up on benches two and a half feet high. The dimensions of the fattening crate are: 6 feet long, 16 inches wide, and 20 inches high, inside measurements.

Fuller particulars of this crate together with other information will be found in the bulletin mentioned above and copies of which can be obtained on application.

The output of these fattening stations were marketed under the supervision of this Department, a very satisfactory market having been secured in Calgary and Edmonton chiefly. I further beg to submit the following returns from the various places where the demonstrative fattening work was conducted:

REPORT OF POULTRY CO-OPERATIVE FATTENING WORK, 1906.

NAME OF STATION	No. of Chicks	Live Weight	Advance to Patron	Cost of Food	Cost and Advance	Gain live Weight	Dressed Weight	Amount Received	Profit over cost
Lacombe...	242	1,053	\$ 84.24	\$ 25.64	\$ 109.88	303	1,039	\$ 207.80	\$ 97.92
Wetaskiwin	771	2,552½	204.21	62.20	266.41	605	2,772½	554.50	288.09
Red Deer	673	2,621½	205.34	73.62	278.96	612	2,774	554.80	275.84
Innisfail	1,269	5,190½	415.24	120.62	535.86	797	4,958	990.14	454.28
Olds	462	1,785	142.80	54.06	196.86	448	1,932	386.16	189.30
Totals...	3,417	13,202½	\$ 1,051.83	\$336.14	\$1,387.97	2,765	13,475½	\$2,693.40	\$1,305.43

Total advance on 3,417 chicks weighing 13,202½ lbs. live weight at 6 and 18 cts \$1,051.83

Total cost of food:—Meal, milk, grit, louse killer, and freight on same 336.14

Total cost of killing, dressing and marketing. 550.25

Total cost of salaries of station managers 190.70

Grand Total... \$2,128.92

13,369½ lbs. dressed poultry sold at 20c. per lb. \$2,673.90

42 lbs. dressed poultry sold at 19c. per lb. 11.52

64 lbs. dressed poultry sold at 18c. per lb. 7.98

13,475½ lbs. total. \$2,693.40

Less total cost of advance and operation ... \$2,128.92

4 2755c. further advance to patrons on 13,202½ lbs. live weight of chickens \$564.48

Deducting the actual cost of operating the poultry fattening stations the patrons receive a total of 12 2755 cts. per lb. live weight for their chickens. If this work is continued another season and larger quantities handled, a better class of poultry supplied, the cost of operation will be proportionately less and a correspondingly larger return to the patrons.

While this report may be considered satisfactory it is confidently felt that better results are possible under normally favourable conditions. During the past season the fattening operations were a month late in commencing with the result that the second lots of birds at Innisfail and Red Deer were fed during severely cold weather which retarded them fattening properly. At other stations where the demonstration work was conducted far more chickens were delivered than the station could handle causing the fattening houses to be overcrowded. Another drawback in securing the best results was that a large number of the chickens delivered were inferior in quality, lacking breed type and constitution which are important factors in successful fattening. Personal observation showed that a better quality of chickens were found at Red Deer and Olds and as a result more satisfactory gains were obtained. At some of the stations, particularly at Wetaskiwin, cross breeding of the American and Mediterranean varieties had been largely in vogue resulting in an unsuitable bird for making satisfactory gains in the fattening crate. Killing and dressing the chickens also made an additional cost as it was impossible to secure help for this work at each station and a set of pluckers were engaged to go from station to station to attend to the killing and dressing for market.

However, while demonstration work was conducted under somewhat disadvantageous conditions, it is pleasing to report that while an advance of 8c. per lb. live weight was paid to the patrons of the fattening stations it was possible after deducting all expenses of fattening, killing, marketing, and the salaries of the operators, to give the patrons a further 4c. per lb. making a total of 12c. per lb. live weight to the patrons for the chickens delivered at the fattening stations. That this was a decided gain will be readily understood when it is known that in previous years the price for poultry, after the farmer had killed, plucked and drawn it was only from 8 to 10 cents per pound. Those killed in the fattening work were only plucked. The heads, feet and wings were left on and in no case was a bird drawn. This means a considerable gain. Of course in all cases care was taken to see that the crop of the bird was empty as well as the bowels. This was accomplished by fasting the birds for twenty-four hours and giving them a drink towards the close of the fasting period to wash out the bowels. In this way there is nothing to spoil in the bird once it is cooled out after killing. Drawing the birds before marketing only exposes the flesh to the action of germs which will cause decay.

In conclusion it is only necessary to repeat that the climate of Alberta is admirably adapted to the successful raising of poultry and that by a little co-operation on the part of farmers in breeding from utility types of birds (Plymouth Rocks, Wyandottes and Orpingtons) and properly fattening the young birds it is possible to supply our own local markets with a higher class of poultry than has hitherto been sent us from outside points.

IX.—DAIRYING.

For some years the Dominion Department of Agriculture has supervised the work of a number of creameries in the Province. Upon receiving notification from the Honourable the Minister of Agriculture of the Federal Government that his Department would discontinue this work on the first of May, a convention of delegates from the various creameries waited upon the Government of the Province in Edmonton in the month of February and asked that the Provincial Government assume the management of creameries as operated by the Dominion Government. This request the Government acceded to and on the first of May the creameries hitherto in operation were taken over. Mr. C. P. Marker, who had superintended the work of these creameries for the past nine years, was asked to continue the supervision of the work and also to take charge of the whole dairy work of the Government. This he agreed to do and on the first of March was appointed Dairy Commissioner, though his full duties did not begin until the 1st of May.

During the year seven new creameries were added to the twelve already in operation, but the Crossfield one was unable to erect its building in time and therefore sent its cream to Calgary. Thus, there were in operation during the year eighteen creameries. These creameries in all made 1,050,000 pounds of butter, which was largely marketed in British Columbia, Yukon and the Orient.

Besides the so-called Government Creameries there are twenty-four private creameries in operation in the Province which made in the neighbourhood of 910,000 pounds of butter. There are also seven cheese factories. By this it will be seen that the output of creamery butter is practically 2,000,000 pounds besides at least another 1,000,000 made in the private dairies of the Province. From these facts it will readily be gathered that the dairy industry in the Province is assuming considerable proportions.

The following is the report of the Dairy Commissioner.

REPORT OF THE DAIRY COMMISSIONER, MR. C. P. MARKER.

I have the honour to submit herewith report of the Dairy Commissioner's Branch for the period from May 1st to December 31st, 1906. Although my appointment as Dairy Commissioner for the Province dates from March 1st, I did not enter upon the active discharge of all the duties devolving upon me in that capacity until May 1st.

The business management of the Government Creameries in the Province, which was discontinued by the Dominion Department of Agriculture at the end of April last, has claimed the major portion of my time and attention during the period under review, yet we have been able to initiate other lines of dairy work to which reference will be made in the pages following.

It gives me great pleasure to testify to the zeal and diligence of my co-workers in this branch, the office staff, the instructors and others charged with duties in the large field which this service covers. This branch is also indebted to the public press for valuable assistance given in disseminating information on subjects directly or indirectly relating to the dairy industry.

Government Operation of Creameries in the N. W. T.

The conditions leading up to Government management of Creameries, the object in view and the means adopted by the Dominion Government in that connection are outlined by Professor J. W. Robertson, then Commissioner of Agriculture and Dairying for the Dominion, in his report of 1897, and I take the liberty of quoting him:

"The difficulties which the first creameries in the North-West Territories experienced were those common to nearly all pioneer efforts. The want of experience on the part of those who undertook the management, in some cases a lack of adequate capital, and also the absence of established and competent commercial agencies for the handling of butter, resulted in unavoidable losses. These losses, which fell on the joint stock companies or individuals owning the creameries, caused fear among the patrons that the proceeds of the butter might somehow be in part diverted, or taken, to pay obligations of the owners of the creameries. The lack of confidence thus caused, hindered the creameries from receiving sufficient support or enough milk or cream to make their operations profitable.

"In many cases there was an abundance of cattle feed in the localities. The settlers had a fair number of cows. Only the manufacturing conveniences and commercial agencies, that would command the confidence of the people were necessary to enable them to obtain a good revenue from their farms and herds."

In making the announcement dated October 19th, 1896, that a sum of fifteen thousand dollars (\$15,000) was placed in the Supplementary Estimates by the Government and voted by Parliament at its previous session, "To promote the Establishment and Maintenance of Creameries in the North-West Territories," he says:

"It is to be expected that this assistance to dairying in the North-West Territories will increase the value of the Dominion lands, and will promote the well-being of the population there by affording the farmers a favorable chance of producing and marketing those products which can be carried to distant markets with the smallest proportion of their value being absorbed in transportation charges.

"The creameries proposed to be maintained will furnish a means by which the farmers will be able to obtain full market values for their milk. They will thus be encouraged to increase the number of milch cows, to raise more cattle, to feed more swine, to keep larger flocks of poultry, and to enlarge their sources of steady income."

A number of creameries receiving this assistance were operated by the Dominion Department of Agriculture since the year 1897.

Convention at Edmonton.

When the Provinces of Alberta and Saskatchewan had become established the Dominion Government decided to discontinue the management of these creameries and, through the Dairy Commissioner, Mr. J. A. Ruddick, called a convention of representatives from the different creamery associations interested for the purpose of formally handing over to them the management of their business.

The convention was held in the Council Chamber at the City of Edmonton on the 20th of February, 1906, and those present were:

J. A. Ruddick, Dairy Commissioner, representing the Dominion Department of Agriculture.			
Hon. A. C. Rutherford, Premier of Alberta.			
Hon. W. T. Finlay, Minister of Agriculture.			
Hon. Dr. DeVeber.			
Geo. Harcourt, Deputy Minister of Agriculture.			
P. Talbot, M.P., Lacombe.			
A. S. Rosenroll, M.P.P., Wetaskiwin			
W. F. Puffer, M.P.P., Lacombe.			
Geo. P. Dake,	representing	Olds	Creamery.
P. Jaffrey,	"	"	"
W. L. Center,	"	Innisfail	"
Jas. Menon,	"	"	"
D. Morkeberg,	"	Tindastoll	"
S. G. Stephanson,	"	"	"
J. Cole,	"	Red Deer	"
C. J. B. Ward,	"	"	"
D. M. Forhan,	"	Evarts	"
W. W. Howe,	"	"	"
Joseph Barron,	"	Blackfalds	"
P. B. Gregson,	"	"	"
D. C. Gourlay,	"	Lacombe	"
S. W. Findlater,	"	"	"
J. J. Gregory,	"	"	"
S. W. McCaughey,	"	Earlville	"
T. W. Fry,	"	"	"
A. S. Rosenroll,	"	Wetaskiwin	"
Sid Ottewell,	"	Clover Bar	"
Hamilton Lackey,	"	"	"
Gus Doze,	"	Beaver Hills	"
Richard Fisher,	"	"	"
C. Marker, Superintendent of Government Creameries.			

Mr. J. A. Ruddick in his address to the convention reviewed the work which had been done by the Department he represented, to encourage and promote the dairy industry in the North-West Territories during the preceding nine years and showed how creameries which had at first been in most difficult positions financially had now become established upon a self-sustaining basis. New markets had been secured for a large percentage of the output of creamery butter, chiefly in British Columbia, the Yukon Territory and in the Orient. His Department having decided to withdraw from the management of the creameries at the end of the winter season he formally notified the meeting of that decision and handed over the business to the various associations with his best wishes for their future success.

In the course of the discussion following Mr. Ruddick's announcement the fear was expressed by several speakers that the work which had been so laboriously but successfully built up under Government management would be in danger of disintegration if each creamery association were left to its own resources. A resolution was passed unanimously by the representatives present thanking the Dominion Government, and its officers connected with the work, for efficient and satisfactory management of the business of the Creameries in the past and requesting the Provincial Government to undertake and continue the management of the creameries upon a basis similar to that established by the Dominion Government.

Replving to the latter part of this resolution the Hon. W. T. Finlay, Minister of Agriculture, stated that the Provincial Government

recognized fully the importance of the dairy industry to the farmers of the Province and, on behalf of his colleagues, assured the representatives that the Government would be prepared to continue the work so well begun. The Hon. the Premier expressed himself as being in sympathy with the work and concurred in the statement just made by the Minister of Agriculture. Hon. Dr. DeVeber also favoured that action be taken.

Speeches were also made by Mr. P. Talbot, M.P., and the members of the Provincial Legislature present commending the stand the Government had taken in the matter.

Creameries under Provincial Management.

The Government having decided to undertake the business management for the Creamery Associations requesting it and complying with the requirements of the Department, the following amounts were placed in the Estimates and voted by the Legislature for the Dairying Service of the Province for the fiscal year ending December 31st, 1906, viz.:

- | | |
|--|------------|
| "1. To promote and encourage dairy work in the Province. | \$7,500.00 |
| "2. To assist Creameries, not exceeding \$1,500.00, to each Creamery
such loans to be paid back by a charge on butter | 10,000.00 |
| "3. To provide for advance payments and general operating expenses
of the Creamery work | 250,000.00 |

"(The revenue from the sales of butter will equal the expenditure so that the Government will not be actually called upon to meet any portion of this vote out of the General Revenue but will be required to meet advance payments for cream and supplies to about \$20,000 or \$30,000 per month for a few months when the accumulated receipts will be so great that no advance from revenue will be necessary.)"

Below will be found a copy of the Memorandum of Agreement, entered into between the Department and the several creamery associations, upon which the business management was based.

In the case of newly established creameries additional provision was made authorizing the Boards of Directors to dispose of any surplus which might appear on manufacturing account, through the actual cost of manufacture being less than four cents per pound of butter, for the purpose of reducing the indebtedness of the Association; but in return for the money so disposed of the patrons of the creameries were to receive paid-up stock in the association to the amount of their proportionate share in any surplus. Otherwise the surplus is disposed of as each Association may direct.

Memorandum of Agreement.

.....*Association.*

*and the Dairy Commissioner, acting for
The Department of Agriculture for the Province of Alberta.*

1. The.....
(hereinafter called the Association) agree to provide suitable buildings and premises fully equipped for the manufacture of butter, and a sufficient supply of pure water and suitable drainage, all to the

satisfaction of the Dairy Commissioner, for carrying on the business of manufacturing butter at.....in the Province of Alberta.

2. The Association guarantee a cream supply to the Creamery from four hundred cows for a period of not less than five months per year.

3. The Association agree to give and assure to the Department of Agriculture free and undisturbed possession of the creamery buildings, premises and plant for a term of not less than one year from the first day of May, 1906.

(2) Any charge or claim on the buildings, premises or plant, on behalf of any person or persons whatsoever, is not to be considered as a claim on the Department of Agriculture.

4. The Association agree to use all reasonable means to promote the interests of the creamery and to secure persons who will furnish a supply of cream.

5. The Association agree that the cream shall be delivered at the creamery free of charge to the Department of Agriculture.

6. The Association agree to provide any additions to the building and equipment, not in the nature of repairs, which the Dairy Commissioner may consider necessary for the dispatch and efficiency of the work in the creamery.

7. In consideration of the foregoing, the Dairy Commissioner agrees to manufacture from the cream which is received a first class quality of butter at the manufacturing rate or charge of four cents per pound of butter manufactured.

(2) The right to reject any cream which he considers unfit for use in making first class butter is reserved to the butter-maker in charge of the creamery and his decision in the matter shall be final.

8. The Dairy Commissioner agrees to market the butter to the best of his judgment and ability, and to pay to the persons supplying the cream, the net proceeds realized from all sales of butter and buttermilk, in proportion to the quantity of butter made from the cream furnished by each, after deducting—

1st. The manufacturing charge of four cents per pound of butter;

2nd. Any charge which the Board of Directors of the Association may direct to be paid for the delivery of cream to the creamery; and

3rd. Such further charge or assessment as may be made on the manufactured butter, duly authorized by the said board.

9. The Dairy Commissioner agrees to pay to the said persons supplying the cream, severally, after the end of every month, such advances as he may estimate to be about two-thirds of the net value of the cream supplied by them or each of them.

(2) Such advance payments shall be made in even dollars, and no advance payment shall be made for less than two dollars.

10. The Dairy Commissioner agrees to provide the labor, fuel, ice, packages and all other furnishings which are necessary in the operation of the creamery, and to care for the butter in Cold Storage until it is shipped from or

11. The Dairy Commissioner agrees to pay to the Association annually, as rent for the use of the buildings, premises and plant, in the manner herein provided, a sum not exceeding seven per cent. of their value, in so far as the interest of the Association therein may appear, such portion of the rent as may be required by the Association to meet claims for taxes, insurance and incidental expenses, will be paid in cash upon receipt of a resolution of the Directors of the Association specifying the amount required, but in no case shall the amount so paid exceed the annual rental.

12. The Dairy Commissioner agrees to insure the butter against loss by fire, as trustee for and on behalf of the persons supplying the cream, to the amount of two-thirds of its estimated market value; but the creamery buildings, premises and plant are to be insured by the Association on its own behalf, and the Department of Agriculture is not to accept or have any responsibility or liability in that direction.

13. The Dairy Commissioner agrees to keep the creamery buildings and plant in a good state of repair, ordinary wear and tear and damage by fire, lightning, tempest, and other casualty excepted.

Dated at.....this
.....day of.....A.D., 1906.

Witness:

.....
President of the Association.

Witness:

.....
Secretary of the Association.

Witness:

.....
Dairy Commissioner.

Butter Output of the Creameries.

In order to give continuity to the records I quote from the Dominion Dairy Commissioner's report the summaries of the summer season's business of the Government Creameries in Alberta since their inception and for comparison give, also, the summary of the past summer season's business under provincial management

Reference to Table "I" will show that six new creameries were added to the number operated during the previous year; also that with a few exceptions, the business of each has increased substantially.

TABLE I.
SUMMARY OF BUSINESS DONE AT GOVERNMENT CREAMERIES
IN ALBERTA, 1897 to 1906 inclusive.

NAME OF STATION	Season	No. of Patrons	Inches of Cream supplied	Lbs. of Milk supplied	Lbs. of Butter manufactured	Average price realized at Creamery per lb. Cents	Manufacturing Charge per lb. Cents	Number of days in operation	Gross value of product \$
Calgary.....	1897	31	7,065 1	168,957	14,071	19.40	4	146	2,729.80
	1898	59	15,627 0	125,186	19,389	20.25	4	168	3,926.70
	1899	43	24,806 7		24,677	21.55	4	174	5,319.47
	1900	65	31,624 2		34,099	20.21	4	178	6,893.20
	1901	64	27,427 6		28,178	19.28	4	163	5,435.20
	1901-2	141	27,168 3		27,828	24.56	4	177	6,834.84
	1902	41	16,981 0		19,162	23.89	4	184	4,378.48
	1902-3	12	656 5		639	25.00	4	32	159.75
	1903	58	30,482 1		33,286	20.05	4	184	6,675.14
	1904	20	12,450 5		14,018	20.90	4	179	2,930.31
	1905	56	29,788 2		33,312	21.07	4	167	7,019.19
	1906	54	24,708 8		27,169	21.647	4	148	5,881.38
Edmonton.....	1897	90	13,901 7	327,451	27,364½	17.68	4	151	4,840.26
	1898	48	12,346 3	115,036	17,068	18.80	4	126	3,209.19
	1899	49	14,149 9	70,144	17,322	20.96	4	160	3,631.56
	1900	51	18,693 7		17,089	20.60	4	168	3,520.61
	1901	59	17,210 9		16,508	20.00	4	153	3,302.29
	1902	37	13,012 8		14,217	19.93	4	143	2,833.92
	1903	51	14,757 0		16,348	19.76	4	122	3,231.40
	1904	27	9,128 7		11,758	20.50	4	118	2,410.92
	1897	81	19,143 9	390,645	38,621	18.91	4	154	7,304.36
	1897-8	73	5,485 5	133,397	12,114	23.79	4	181	2,882.38
	1898	105	39,003 5	437,405	57,717	20.40	4	184	11,775.55
	1898-9	107	18,072 0	148,904	22,664	23.10	4	181	5,237.25
Innisfail	1899	156	68,924 8	349,682	86,040	20.69	4	184	17,805.53
	1899-0	90	21,156 4	6,770	18,895	23.65	4	181	4,469.63
	1900	130	84,429 2		89,402	20.05	4	184	17,926.15
	1900-1	98	21,767 3	...	21,795	23.39	4	181	5,098.84

Innisfail	1901	131	83,588 3	90,484	19 16	4	184	\$17,338 49
	1901-2	75	13,445 1	12,721	24 54	4	192	3,122 09
	1902	124	90,329 6	99,245	20 86	4	184	20,709 49
	1902-3	166	41,265 2	42,634	24 30	4	183	10,362 42
	1903	180	118,428 5	141,372	19 34	4	184	27,338 41
	1903-4	107	24,816 0	27,539	24 54	4	179	6,765 52
	1904	193	126,223 2	138,719	20 64	4	181	32,774 11
	1904-5	130	28,600 9	31,730	25 00	4	180	7,935 40
	1905	204	152,258 4	199,466	21 44	4	188	42,780 52
	1905-6	156	35,834 2	42,320	25 37	4	181	10,739 12
	1906	233	144,736 8	186,486	21 589	4	187	40,261 03
	1897	66	22,079 5	30,148	18 70	4	153	5,639 83
	1897-8	54	8,604 0	11,104	22 93	4	181	2,546 57
	1898	76	28,253 9	42,878	19 84	4	184	8,507 54
	1898-9	68	12,148 8	19,782	23 07	4	181	4,565 42
	1899	110	46,676 0	62,142	20 86	4	184	12,968 23
	1899-0	51	13,173 5	15,477	23 90	4	181	3,711 38
	1900	92	49,475 0	63,859 1	20 25	4	182	12,933 18
	1901	111	47,665 2	60,450	19 16	4	188	11,583 12
	1902	83	43,181 4	55,091	20 54	4	181	11,320 28
	1902-3	72	17,407 5	21,196	24 30	4	183	5,152 69
	1903	179	63,289 8	80,546	20 37	4	184	16,410 21
	1903-4	100	17,444 3	19,627	24 69	4	179	4,847 76
	1904	98	58,973 1	74,447	20 63	4	181	15,365 16
	1904-5	129	20,193 5	23,812	25 08	4	178	5,974 00
	1905	131	80,335 9	101,031	21 41	4	188	21,634 92
	1905-6	174	31,068 8	35,554	25 26	4	181	8,984 34
	1906	161	83,088 0	100,036	21 315	4	187	21,323 57
	1897	47	2,669 7	17,691 1/2	18 68	4	125	3,306 43
	1898	58	8,576 5	27,136	20 08	4	192	5,449 65
	1899	71	14,815 4	32,350	20 98	4	184	6,789 29
	1899-0	35	4,780 1	7,637	23 89	4	181	1,824 95
	1900	66	16,384 1	33,770	20 10	4	184	6,787 70
	1900-1	37	4,236 2	4,882	23 21	4	181	1,133 52
	1901	27	7,918 1	12,185	19 18	4	160	2,338 10
	1903	32	15,447 1	18,667	19 34	4	153	3,610 63
	1904	9	2,249 8	2,501	21 22	4	64	530 75
	1905	158	69,208 7	83,807	21 28	4	195	17,836 80
	1906	100	56,579 7	72,021	21 073	4	195	15,176 95
Red Deer								
	1901	131	83,588 3	90,484	19 16	4	184	\$17,338 49
	1901-2	75	13,445 1	12,721	24 54	4	192	3,122 09
	1902	124	90,329 6	99,245	20 86	4	184	20,709 49
	1902-3	166	41,265 2	42,634	24 30	4	183	10,362 42
	1903	180	118,428 5	141,372	19 34	4	184	27,338 41
	1903-4	107	24,816 0	27,539	24 54	4	179	6,765 52
	1904	193	126,223 2	138,719	20 64	4	181	32,774 11
	1904-5	130	28,600 9	31,730	25 00	4	180	7,935 40
	1905	204	152,258 4	199,466	21 44	4	188	42,780 52
	1905-6	156	35,834 2	42,320	25 37	4	181	10,739 12
	1906	233	144,736 8	186,486	21 589	4	187	40,261 03
	1897	66	22,079 5	30,148	18 70	4	153	5,639 83
	1897-8	54	8,604 0	11,104	22 93	4	181	2,546 57
	1898	76	28,253 9	42,878	19 84	4	184	8,507 54
	1898-9	68	12,148 8	19,782	23 07	4	181	4,565 42
	1899	110	46,676 0	62,142	20 86	4	184	12,968 23
	1899-0	51	13,173 5	15,477	23 90	4	181	3,711 38
	1900	92	49,475 0	63,859 1	20 25	4	182	12,933 18
	1901	111	47,665 2	60,450	19 16	4	188	11,583 12
	1902	83	43,181 4	55,091	20 54	4	181	11,320 28
	1902-3	72	17,407 5	21,196	24 30	4	183	5,152 69
	1903	179	63,289 8	80,546	20 37	4	184	16,410 21
	1903-4	100	17,444 3	19,627	24 69	4	179	4,847 76
	1904	98	58,973 1	74,447	20 63	4	181	15,365 16
	1904-5	129	20,193 5	23,812	25 08	4	178	5,974 00
	1905	131	80,335 9	101,031	21 41	4	188	21,634 92
	1905-6	174	31,068 8	35,554	25 26	4	181	8,984 34
	1906	161	83,088 0	100,036	21 315	4	187	21,323 57
	1897	47	2,669 7	17,691 1/2	18 68	4	125	3,306 43
	1898	58	8,576 5	27,136	20 08	4	192	5,449 65
	1899	71	14,815 4	32,350	20 98	4	184	6,789 29
	1899-0	35	4,780 1	7,637	23 89	4	181	1,824 95
	1900	66	16,384 1	33,770	20 10	4	184	6,787 70
	1900-1	37	4,236 2	4,882	23 21	4	181	1,133 52
	1901	27	7,918 1	12,185	19 18	4	160	2,338 10
	1903	32	15,447 1	18,667	19 34	4	153	3,610 63
	1904	9	2,249 8	2,501	21 22	4	64	530 75
	1905	158	69,208 7	83,807	21 28	4	195	17,836 80
	1906	100	56,579 7	72,021	21 073	4	195	15,176 95
Wetaskiwin								

TABLE I.—Continued.

SUMMARY OF BUSINESS DONE AT GOVERNMENT CREAMERIES
IN ALBERTA, 1897 to 1906 inclusive.

NAME OF STATION	Season	No. of Patrons	Inches of Cream supplied	Lbs. of Milk supplied	Lbs. of Butter manufactured	Average price realized at Creamery per lb. Cents	Manufacturing Charge per lb. Cents	Number of days in operation	Gross value of product
Tindastoll.....	1899	66	6,350.2	162,406	14,655	21 78	4	112	\$3,192.51
	1899-0	52	8,481.1	26,734	10,009	23 95	4	181	2,397.80
	1900	75	37,374.1	9,798	45,755	20 04	4	184	9,173.08
	1900-1	46	7,696.4	..	7,874	23 02	4	181	1,812.80
	1901	41	28,235.8	..	31,527	19 15	4	184	6,037.87
	1901-2	35	9,454.1	..	9,000	24 45	4	181	2,200.82
	1902	64	42,055.5	..	48,086	20 79	4	174	9,997.71
	1902-3	50	10,866.4	..	10,608	24 29	4	183	2,577.46
	1903	74	46,639.2	..	51,169	19 28	4	184	9,864.96
	1903-4	45	7,981.1	..	7,432	24 63	4	180	1,830.55
	1904	57	36,368.0	..	43,725	20 50	4	181	8,967.39
	1904-5	56	9,726.3	..	9,757	25 03	4	181	2,443.08
	1905	78	52,398.7	..	65,536	21 39	4	188	14,024.56
	1905-6	85	17,659.9	..	20,315	25 27	4	181	5,134.62
	1906	106	68,523.5	..	89,471	21 326	4	187	19,080.85
Cardston.....	1899	14	..	101,075	4,142	22.402	4	130	927.91
	1900	31	11,597.6	..	11,007	20 00	4	93	2,201.70
Olida.....	1901	30	22,195.5	..	22,166	19 11	4	169	4,236.98
	1902	49	38,892.1	..	42,637	20.73	4	217	8,841.31
	1903	79	53,879.3	..	65,904	19.29	4	184	12,714.40
	1903-4	50	7,764.1	..	7,732	24 61	4	180	1,903.04
	1904	58	38,850.1	..	48,338	20 59	4	181	9,956.80
	1904-5	56	9,400.8	..	9,881	24 90	5	180	2,461.03
	1905	110	80,644.6	..	103,506	21 38	4	188	22,136.38
	1905-6	77	19,302.1	..	21,353	25.22	4	181	5,386.30
	1906	117	80,128.1	..	105,129	21.376	4	187	22,472.11

Blackfalds.....	1903-4 1904 1905 1906	84 28 84 120 153	29,541.8 1,239.3 32,384.4 59,386.2 67,987.2	..... ..... ..... ..... .....	35,981 1,354 40,048 76,703 90,285	19.29 24.46 20.50 21.30 21.12	4 4 4 4 4	120 27 181 188 187	\$6,941.55 331.21 8,212.39 16,340.89 19,068.65
Lacombe.....	1903 1904 1905 1906	51 54 105 108	10,831.6 19,200.9 47,485.0 48,569.1	..... ..... ..... .....	14,138 22,587 59,768 63,729	19.31 20.44 21.29 20.964	4 4 4 4	98 181 188 187	2,730.10 4,617.51 12,728.61 13,352.51
Beaver Hills	1905 1906	44 21	14,183.8 4,731.1	..... .....	19,527 6,482	20.77 20.208	4 4	134 67	4,057.14 1,309.90
Clover Bar.....	1905 1906	58 47	12,565.4 12,665.8	..... .....	13,057 14,090	21.57 20.788	4 4	120 132	2,817.38 2,929.18
Earlville	1905 1906	73 141	22,834.3 71,876.0	..... .....	30,681 90,768	21.55 21.219	4 4	120 216	6,612.68 19,260.13
Evarts	1905 1906	80 79	24,244.4 35,210.8	..... .....	27,036 37,292	21.01 21.126	4 4	154 188	5,682.33 7,878.48
Ferry Bank.....	1906	92	43,255.0	.....	54,999	21.081	4	173	11,594.57
Martins.....	1906	82	.....	95,959*	31,131	19.318	5	153	6,017.75
Pine Creek	1906	58	20,650.3	.....	24,274	21.798	4	117	5,291.47
Rosenroll.....	1906	63	15,752.4	.....	20,506	21.184	4	126	4,344.01
Stettler	1906	76	23,726.1	.....	29,439	21.088	4	146	6,208.11
Stony Plain	1906	64	6,122.8	.....	7,029	21.460	4	64	1,508.46

*Lbs. of Cream.

TABLE II. TOTALS OF THE FOREGOING BY SEASONS.

SEASON	No. of Patrons	Inches of Cream supplied	Lbs. of Cream supplied	Lbs. of Milk supplied	Lbs. of Butter manufactured	Average price realized at creamery per lb	Gross value of Product
						Cents.	
1897	315	64,859.9	.	1,455,100	127,896½	18 625	\$ 23,820.68
1897-8	127	14,089.5	.	231,374	23,218	23 382	5,428.95
1898	346	103,807.2	.	1,352,113	164,188	20 018	32,868.63
1898-9	175	30,220.8	.	276,628	42,446	23 094	9,802.67
1899	509	175,723.0	.	1,244,194	241,328	20 981	50,634.50
1899-0	228	47,591.1	.	100,471	52,018	23 845	12,403.76
1900	510	249,577.9	.	373,928	294,981½	20 148	59,435.62
1900-1	171	33,699.9	.	29,486	34,551	23 284	8,045.16
1901	463	234,241.4	.	80,579	261,498	19 224	50,272.05
1901-2	251	50,067.5	.	...	49,549	24 536	12,157.75
1902	398	244,452.4	.	...	278,438	20 931	58,281.19
1902-3	300	70,195.6	.	...	75,077	24 311	18,252.32
1903	788	383,296.4	.	...	457,411	19 570	89,516.80
1903-4	330	59,244.8	.	...	63,704	24 610	15,678.08
1904	600	335,828.7	.	...	416,141	20 609	85,765.34
1904-5	371	67,921.5	.	...	75,180	25 024	18,813.51
1905	1,217	645,333.6	.	...	813,430	21 350	173,671.40
1905-6	492	103,865.0	.	...	119,542	25 300	30,244.38
1906	1,755	808,311.5	95,959	...	1,050,356	21 227	222,959.11
		3,722,327.7	95,959	5,143,873	4,640,952½		\$978,051.90

TABLE III.

SUMMARY OF THE BUSINESS FOR THE SUMMER SEASON 1906 AT THE PROVINCIAL GOVERNMENT CREAMERIES IN ALBERTA.

Creamery at	No. of Patrons	Butter Manufactured pounds	Value at Creamery	Average price at Cream'y for Sea'n	Average prices by periods		
					1st Period	2nd Period	3rd Period
			\$ c.	c.	c.	c.	c.
Calgary..	54	27,169	5,881.38	21 647	.....	20 650	24 581
Olds..	117	105,129	22,472.11	21 376	22 382	20 392	23 979
Innisfail..	233	186,486	40,261.03	21 589	22 567	20 480	24 361
Tindastoll	106	89,471	19,080.85	21 326	22 337	20 318	23 865
Red Deer..	161	100,036	21,323.57	21 315	22 361	20 333	23 960
Evarts ..	79	37,292	7,878.48	21 126	22 308	20 323	23 703
Blackfalds	153	90,285	19,068.65	21 120	22 305	20 236	23 800
Lacombe...	108	63,729	13,352.51	20 964	22 216	20 172	23 950
Earlville..	141	90,768	19,260.13	21 219	22 227	20 204	23 979
Ferry Bank..	92	54,999	11,594.57	21 081	22 250	20 174	23 780
Wetaskiwin..	100	72,021	15,176.95	21 073	22 205	20 129	23 672
Rosenroll...	63	20,506	4,344.01	21 184	.....	20 049	23 811
Clover Bar ..	47	14,090	2,929.18	20 788	22 180	20 267	23 603
Stony Plain..	64	7,029	1,508.46	21 460	...	20 078	24 180
Beaver Hills..	21	6,482	1,309.90	20 208	...	20 208	...
Stettler.....	76	29,439	6,208.11	21 088	.....	20 054	23 667
Pine Creek...	58	24,274	5,291.47	21 798	...	20 235	23 840
Martins..	82	31,151	6,017.75	19 318	.....	...	...
Totals and averages..	1,755	1,050,356	222,959.11	21 227	22 347	20 299	23 976

Table III shows the patronage, butter output, gross revenue and average price for season at the several creameries. The variations in the latter item, which is perhaps of greater general interest than

the others, are due to several causes, such as amount of local freight charges from creamery to point of distribution and proportion of butter output during each of the three periods into which the summer season's business was divided.

It may be explained at this point that the division was as follows: 1st from the beginning of the season up to May 26th, 2nd period from May 28th to September 1st, 3rd period takes in the months of September and October.

Owing to the present condition of our western markets the prices realized for butter made during the first and third periods are considerably higher than the average for the second, hence the farmers who patronize the creameries during the *whole season* receive through its division into these periods the full benefit of the higher prices. There are many who patronize the creameries only when they find it difficult to dispose of their home made butter in the local market, i.e., during the warm summer months.

If *all* the patrons of a creamery would send to it *all* the cream they have to dispose of throughout the season, they would *all* receive full benefit therefrom. This is worth remembering.

In this connection a circular was issued from this office in September last, and largely distributed among patrons of the Government creameries. It said, in effect:

Stay with the Creamery.

This is the time of year when a good many, too many, creamery patrons leave their creamery, and for various reasons. Some there are who find their cream supply small and "not worth while sending," others find that the local markets will pay CASH for dairy butter and still others stop sending cream in order to put up their own butter supply for the winter.

To the former we would say: keep on sending your cream as long as the creamery continues in operation, and you will have done what you could to keep it going and make the season's business as large and as profitable as possible to all concerned. It is individual effort that tells, every time.

Stay with the creamery!

To those who think they can do better selling their home made butter on the local market rather than continuing their patronage to the creamery—their own business—for the remainder of the season I would point out that the creamery is, in the long run, the best market you can find for your cream and it is to your own interest to support it, materially as well as morally, at all times. There are farmers who are very glad to avail themselves of the services of the local creamery when they are unable to find a market for their home made butter, and equally ready to leave the creamery as soon as the local market offers CASH for dairy butter, a condition brought about solely by those same creameries. Therefore,

Stay with the creamery!

Regarding those who wish to put up their winter supply of butter, no objection could be justly raised to this, but—why not let the creamery supply whatever you need at wholesale price and save the labor of churning yourself? Any patron supplying the package for butter taken out may receive a reduction in the price equal to the actual cost of package to us. Think it over and

Stay with the creamery!

The best markets in the country are hungry for fine creamery butter, and we want to supply a portion of their requirements from our creameries.

Loans to Creameries.

An appropriation of \$10,000 was made by the Provincial Legislature towards assisting in the establishment of creameries in the Province. Loans of not more than \$1,500 could be made to Associations duly formed and enregistered under the provisions of The Dairymen's Ordinance and otherwise complying with the regulations made in that behalf. These loans are intended for the purchase and installation of machinery and equipment and are, in most cases, ample for the purpose.

The following table shows the amounts of money advanced to new creamery organizations during the year on account of loans:

LOAN ACCOUNTS, 1906.

NAME OF ASSOCIATION	Amount of Loan	Repayment	Still due
Stettler and District Creamery Ass'n. . .	\$ 1,267 34	\$ 294 39	\$ 972 95
The Battle River Creamery Ass'n. . . (Ferry Bank)	1,404 20	549 99	854 21
Pine Creek Creamery Association. .	1,057 83	242 74	815.09
Rosenroll Dairy Association .	1,484.07	205 06	1,279 01
Stony Plain Creamery Association. . .	1,504 70	70 29	1,434.41
Totals. .	\$6,718 14	\$1,362 47	\$5,355.67

At the close of the season's business repayments were made as indicated, from the proceeds of a special assessment of one cent per pound on all butter manufactured at the creameries receiving the loans.

In return for this special assessment the patrons supplying cream are credited with paid up shares in the capital stock of the Association in proportion to the amounts paid in by them severally to the loan fund.

Private Creameries.

Forty-two creameries were in operation throughout the Province during the season 1906, of these 24 were conducted by private enterprise as distinct from the 18 co-operative ones operated by the Department, as already alluded to.

The private creameries are apparently giving good service to their patrons, the majority manufacturing the butter at 4c. per pound,

the cream being delivered free of charge to the creamery. The proceeds from the sales of butter less the manufacturing cost is distributed among the patrons in proportion to the quantity of butter yielded by the cream supplied by each, as indicated by the Babcock tester or the oil test churn.

In a few cases the creamery owner undertakes the collection of the cream supplied by his patrons making such additional charge for that service as may be mutually agreed upon.

Some 1,300 farmers supply cream to these 24 creameries and their butter output during the summer season was in the neighbourhood of 910,000 pounds, representing a value of some \$180,000. A couple of the creameries did not respond to our request for statistics and for that reason the exact figures are not available.

It may be of interest to add, for the sake of comparison, that 14 private creameries were in operation during the season 1905 with a patronage of about 900, a butter output of 630,500 pounds valued at \$125,000, showing an increase for 1906 of practically 50% over the preceding year.

The private creameries are located at the following points: Carbon, Carstairs, Didsbury, Neapolis, Sunny Slope, Harmattan, Mayton, Bowden, Pine Lake, Red Deer, Valley City, Content, Lamer-ton, Ponoka, Camrose, Battle River, Highland Park, Duhamel, Leduc, Lamont, Olds, Bawlf and Vegreville.

Cheese Factories.

During the season of 1907 seven cheese factories were in operation. The patronage at each of these varied from 4 to 22 and the cheese output from 2,790 pounds to 33,588 pounds. The total patronage being 87 and cheese production 97,739 pounds.

Although fairly good prices are obtainable on the home markets for locally made cheese, yet there is not likely to be very much development in that branch of dairying for some time to come. The cost of collecting and delivering milk every day to the factory is comparatively great, the dairy herds being yet small and somewhat scattered. Besides, the farmers who want to increase their herds find that they need the skimmed milk for rearing the young stock, an arrangement which works very well in connection with the creameries, where cream only is received.

A number of small cheese factories have been started in Alberta during the past eight or nine years, but have not proved altogether successful as a business proposition. In a few cases they have to some extent succeeded in disorganizing for a time the business of some of the creameries but such disturbances are likely to be of short duration. The time will come, no doubt, when cheese factories can be operated in this Province profitably to all concerned.

Travelling Dairy Work.

There are large settled districts in the Province in which the majority of the farmers are engaged more or less in mixed farming and dairying but not within reach of any of the established creameries.

As a consequence the farmers are obliged to manufacture their own butter and dispose of it in the local markets which is not always an easy thing to do.

One of the principal drawbacks attending home dairying is the lack of uniformity in the quality and style of butter put up and the difficulty in marketing once the supply exceeds the local requirements. The remedy seems to lie in more education along the lines of scientific dairying, from the care and feeding of the dairy stock to the manufacture of dairy products ready for the markets.

It was, therefore, deemed expedient to equip and send out a "travelling dairy" to such outlying settlements. This travelling dairy, placed in charge of a competent dairy instructor and assistant, consists of a complete outfit for carrying on farm buttermaking, such as hand power cream separator, barrel churn, lever butter worker, Babcock milk tester with supplies, thermometers, pails and other small utensils for the purpose of demonstrating what could be done with an equipment the cost of which is within the reach of any farmer who engages in dairying.

The following circular, issued by your instruction, indicates the nature of the work undertaken by the travelling dairy:

"PROVINCE OF ALBERTA

" DEPARTMENT OF AGRICULTURE

" OFFICE OF THE DAIRY COMMISSIONER

CALGARY, September 20th, 1906.

' Dear Sir,—

I am directed by the Hon. the Minister of Agriculture to announce that the Government Travelling Dairy School will visit your district at an early date, and you will find attached hereto a list giving the dates, places and hours for our meetings.

"The Dairy School will be in charge of one of our experts, and will be fully equipped with all modern appliances for a Dairy Farm. Arrangements will be made for a supply of milk and cream to be delivered on the days of the meetings and the Cream Separator, Churn, etc., will be seen in full operation.

"Lectures, instruction and demonstrations will be given on the following, and other subjects, viz.:

"1. The composition, and care of milk on the farm. Reference will be made to the most suitable appliances and utensils for use in the home dairy.

"2. Separation, care and handling of cream, different methods of creaming, etc.

"3. Ripening of cream for buttermaking.

"4. Churning and finishing butter for different markets, showing various forms of packages.

"5. Sampling and testing of milk by the Babcock Tester, and the keeping of dairy records on the farm.

"In short, it is intended to make our demonstrations practical and useful to those who may attend them and it is hoped that you will interest yourself in our work and assist us in making generally known throughout your district the date, place and hour of the meetings. Make a point of attending yourself one or all of the meetings and—be on time.

"We invite you to bring samples of milk for testing from individual cows, whole herds, from skim milk or butter milk. Such samples should, of course, be thoroughly representative of a whole milking, skimming or churning, as the case may be. Otherwise they will be valueless for purposes of information. Bottles holding four ounces or over will do nicely for holding the samples, but in order to prevent whole milk from churning in transit you will fill the bottle and press the cork in tightly so as to leave no vacant space underneath.

"Come prepared to ask questions. If you have had any difficulties in your work, we may be able to help you. Our experience is at your service.

" Respectfully yours,

" C. MARKER,

Dairy Commissioner."

A somewhat extensive program was mapped out for this work but owing to the illness of the instructor in charge and our inability to secure a substitute at the time, many meetings arranged for in the southern and eastern portion of the Province had unfortunately to be cancelled. In the northern portion along the line of the C. N. Ry. meetings were held and demonstrations given at the places named below and the instructor in charge, Mr. H. S. Pearson, reports that the work was greatly appreciated by those who attended, numerous questions were asked and answered and interesting discussions followed each lecture. The following places were visited:

Bruderheim,
Star,
Wostock,
Andrew,
Whitford,
Soda Lake,
Warwick,
Vegreville,
Mundare,
Fort Saskatchewan,

and the attendance reached, in some cases, 70 to 75 persons, many of whom were ladies.

Demonstrations in milk testing, etc., were also given in the Government tent in connection with the Agricultural Fairs held at Edmonton, Innisfail, Calgary, Okotoks, Pincher Creek and Raymond.

On the whole I think it may be said that the travelling dairy did good work and it should perhaps be continued during the coming season especially for the benefit of outlying settlements.

X.—BRANDS.

On the inception of the Province arrangements were made with the Department of Agriculture of Saskatchewan for the continuance of the registration of brands at Regina until such time as other arrangements could be made. At a meeting of representative stock men held in Calgary in January, the Department was asked to establish a brand office of its own and to arrange for the cancellation and re-allotment of all existing brands. This, however, it was found was impossible to do, but, as three quarters of the brands on the books were held in Alberta, the Saskatchewan Government graciously agreed to the removal of the brand office to Medicine Hat, and to the continuation of a joint office. A new recorder of brands was appointed in the person of Mr. James Wilson, formerly manager of the Cochrane Ranch, and a man with considerable experience with brands. He has been appointed Recorder of Brands by both Provinces and has control of the work in the office at Medicine Hat.

His staff has been very busy during the summer re-indexing and writing separate books for each Province. He is now engaged in the work of consolidating all the brands which have been recorded up to date. It will be rather a surprise to know that there are over 31,000 recorded brands, and that the work of the office, instead of diminishing with the passing away of the rancher, is steadily increasing, there being at least 25% more brands recorded this year than in any previous year. This is readily accounted for when it is understood that every settler in the Province owning cattle must have a brand in order to protect himself.

A brand commission was provided for in the legislation passed at the last session, and the following men appointed Brand Commissioners: T. J. Day, Medicine Hat; Walter Huckvale, Medicine Hat; and A. B. McDonald, Lyndon.

The following is the report of the Recorder of Brands:

REPORT OF THE RECORDER OF BRANDS, MR. JAMES WILSON.

I have the honour to submit the following report on the work of the Brand Office:

The last published returns give the number of brand transactions up to December 31st, 1904, and the statements attached now bring these down to December 31st, 1906, covering the full period of two years.

The brands issued during the first eight months of 1905 were Territorial ones and those issued for the balance of the year are shown as Alberta and Saskatchewan brands. Although the division of the Territories took place in September of that year, all brands recorded during the remainder of that year and up to 30th June, 1906, were recorded in the old Territorial records indiscriminately, while the fees for each Province were kept separate.

In the spring of 1906 an arrangement was entered into by the two Governments by which I was appointed Recorder of Brands for both Provinces, and the office removed on the 1st of July to Medicine Hat, where ample room and vault accommodation had been secured. Although the brands for the two Provinces are issued from the joint office, still, they are practically separate departments. Each has its complete set of records as if run from the capital of its own Province.

Immediately prior to coming to Medicine Hat a complete copy of the old records was made, and by agreement the original records were retained by Alberta, while the copies became the records for the Province of Saskatchewan. It has been found a great convenience to have a joint office. The inter-provincial boundary divides the grazing country, and ranchers, naturally, do not wish to see the same brand recorded for the adjoining Province. A number of the older ranchers, who have been in possession of their brands for years, have had them recorded in both, and new applicants, resident near the border of the Provinces, can have the same brands allotted for both Provinces without any trouble or delay; the records for each being immediately available. In like manner, when a search or certified extract is required from any point near the boundary, both sets of records can be consulted, and the information given without any unnecessary delay or inconvenience to the public.

During the year 1905, 1,322 horse and 1,760 cattle brands were issued, while transfers, changes, searches and extracts brought the total transactions for both Provinces up to 3,717, which was a slight decrease from the previous year. In 1906, for the Province of Alberta alone the horse brands amounted to 1,361, cattle brands 1,894, and the transfers, changes, searches and extracts to 500, giving a total of 3,755. This number is very much larger than any previous year, with the exception of 1898, which took cognizance of the re-allotment, when the total was some 3,228 in all. During the year 1905 Supplement No. 2 of the brand book was prepared and issued, while Supplement No. 3 was issued the following year.

During the fall of 1906 the issue of the brand book, published in 1903, became exhausted, and the two Provinces arranged for the preparation and publication of a revised and consolidated brand book. The new book will contain all changes up to the 30th June, 1906, when entries in the old Territorial records ceased, and two supplements, one for Alberta and one for Saskatchewan, showing the issue of brands, including transfers and changes, from the 1st of July to the 31st December, 1906. The material for this work will take some time to prepare, as all the brands that have been issued will be checked and the many mistakes in the old book corrected. The new book should be ready for publication some time during 1907.

At the first session of the Legislative Assembly it was found necessary to make some changes in the Brand Ordinance. Section 4 was amended by adding a clause enabling the minister to grant a cattle brand of applicant's own choice, upon payment of an additional fee of 50c. During the six months this section has been in force, 56 brands have been granted, but owing to the large number of

existing brands (31,274), it is a difficult matter to suggest a brand which does not conflict with those already issued.

Two new sections were also added to the ordinance, one for the purpose of covering the removal of stock from one point to another within the Province, and the other constituting a board of Brand Commissioners. No meeting of the Brand Commissioners has yet taken place, but one has been called to be held early in January of next year.

The following statement shows the transactions from 1898 up to the 31st of December, 1906:

<i>Transfers.</i>	
YEAR	
1899.	132
1900.	165
1901.	222
1902.	265
1903.	400
1904.	402
1905 { N. W. Territories	299
{ Alberta.	120
{ Saskatchewan.	80
1906 { Alberta	389
{ Saskatchewan.	72

<i>Changes.</i>	
1899.	27
1900.	20
1901.	26
1902.	43
1903.	43
1904.	32
1905 { N. W. Territories.	7
{ Alberta	1
{ Saskatchewan	38
1906 { Alberta.	2
{ Saskatchewan	

<i>Searches and Extracts.</i>	
1899	35
1900	42
1901	100
1902	144
1903.	124
1904	81
1905 { N. W. Territories	13
{ Alberta	2
{ Saskatchewan.	73
1906 { Alberta.	23
{ Saskatchewan	

Total number of Brands re-allotted in 1898, 3,228.

<i>Cattle Brands.</i>	
1899.	2,111
1899.	1,466
1900.	1,508
1901.	1,689
1902	1,934
1903.	2,390
1904.	2,034

YEAR.		
1905	{ N. W. Territories	1,353
	{ Alberta	337
	{ Saskatchewan	70
1906	{ Alberta	1,894
	{ Saskatchewan	641

Horse Brands.

1898..	941	
1899..	821	
1900 ..	886	
1901..	947	
1902..	1,234	
1903..	1,390	
1904..	1,346	
1905 {	N. W. Territories	985
	Alberta	248
	Saskatchewan..	89
1906 {	Alberta	1,361
	Saskatchewan	371

Total Brands on record up to 31st December, 1906, 31,274.

Total Transactions in 1898.	6,280	
“ “ “ 1899.	2,419	
“ “ “ 1900.	2,621	
“ “ “ 1901.	2,920	
“ “ “ 1902.	3,559	
“ “ “ 1903.	4,367	
“ “ “ 1904.	3,949	
1905 {	N. W. Territories.	2,750
	Alberta	725
	Saskatchewan.	242
1906 {	Alberta.	3,755
	Saskatchewan.	1,109

XI.—FRUIT EXPERIMENT STATIONS.

With the view of finding out what had already been done in the Province in the way of raising apples, crabs and plums, of the methods of planting followed and particulars as to fruiting, etc., a circular was sent out early in the spring to 108 persons, who had been reported to the Department as having experimented with fruit trees of this kind. Very few of the reports returned were fully satisfactory as some had only grown small fruits and some were only beginning work of this kind, and only a few had actually succeeded in ripening any fruit. Some of these latter could not give very definite information as to the varieties they had set out, as the name tags had been lost and not many had kept a plan of where their trees were planted. However, some valuable information was obtained as to varieties which had been found hardy enough to stand over several winters. It is a matter for congratulation that so many people could be found, so early in the history of the Province, having courage to experiment with large fruits and that so many had been successful.

It was found that apples had been grown at Medicine Hat, Lethbridge, Magrath, Cardston, Red Deer, and Clover Bar, near Edmonton. The quantity at none of these places was large, but it was very satisfactory to find that success was being achieved over all the Province and that it was not confined to any one district. The most remarkable report probably was from Mr. J. Macfarlane, of Cowley, who reported having raised 32 large sized crabs from a tree of the Hyslop variety at a point about 10 miles north of Cowley and about 7 miles from the great Livingstone Range of the Rocky Mountains. The elevation of this place must be somewhere near 4,000 feet.

With the help of the information obtained from the circulars and other sources, a selection was made of the hardiest trees which seemed to be suitable for conditions in Alberta, and arrangements were made with six farmers to conduct a number of experiments along this line. In making the selection of places at which to carry on this work various things had to be taken into consideration. From the reports of the Dominion Forestry Branch of the Department of the Interior at Ottawa, it would appear that from a forestry and horticultural point of view there are probably three principal districts in Alberta which differ very distinctly the one from the other, the result chiefly of different degrees of rainfall and of elevation.

In the south the dryness of the climate is a very prominent factor and therefore at Medicine Hat a station was established to demonstrate what could be done with fruit growing on dry farming principles. One was established at Magrath so that information could be available for the irrigated part of the Province, and one was established near Leavings, as that point is well in what may be termed the dry country, but is nearly 1,000 feet higher than Medicine Hat. The next two stations are near Okotoks and Didsbury. These two places are pretty much alike in point of elevation, climate and conditions which effect tree growth, but Didsbury is considered to be about the

northern edge of the regular chinook belt. The next place selected was Wetaskiwin and another is to be placed close to Edmonton, with probably another one along the line of the C.N.R. to be established in 1907. There was no station placed between Wetaskiwin and Didsbury as it was felt that information in relation to fruit growing would probably be available from the Dominion Experimental Farm, which has been located at Lacombe.

The gentlemen who have undertaken to carry on the experiments are Thomas Littleford, Medicine Hat; J. B. Merrill, Magrath; J. G. Vosburgh, Leavings; A. S. Blackwood, DeWinton; S. Troyer, Didsbury; and Wm. Pflaging, of Wetaskiwin. These have entered into an agreement with the Department to carry on the experiments for five years, and, if desired by the Department, for a further period of five years, or any shorter period required, they doing all the work necessary under the direction of the Department. An acre of land is to be experimented on and the trees are to be planted at 21 feet apart. In the open country advantage is being taken of the shelter belts which have been set out under the auspices of the Forestry Branch of the Dominion, by having the orchards planted behind them. A considerable quantity of the trees were obtained in the fall of 1906 and buried over winter. These will be duplicated in the spring and planted direct from the nurseries, with the object of determining which is the better time to buy nursery stock,—fall or spring. Only half of each plot will be planted next spring (1907), the other half being left till 1908, so that the results may be verified as far as possible. The fruits to be experimented with are apples, plums and crabs.

From the reports received it would appear that small fruits, gooseberries, black currants, red currants and raspberries are easily grown practically all over the Province and therefore nothing is being done with them.

XII.—PUBLIC HEALTH.

Arrangements with the Saskatchewan Government, whereby this Government has the privileges of the Bacteriological Laboratory at Regina has been continued, and the medical men of the Province have been forwarding samples of water and swabs of suspected contagious diseases for examination. The long delay before returns of the examinations are received makes it very awkward, as in diphtheritic cases a definite knowledge of the presence of the disease at an early stage is most important. It is therefore hoped that at an early date it may be possible to establish a bacteriological laboratory of its own.

In the early part of the year a Public Health Officer was appointed in the person of A. E. Clendenan, M.D., who at once proceeded to organize his department and get his work in shape for the coming year. During the year a number of outbreaks of smallpox were reported and energetic steps taken to stamp it out. He was not, however, able to proceed as fully as was desired in connection with this work on account of the limitations of the provisions of the Public Health Ordinance, which was originally framed to meet conditions as existing in the Territories and for which the Dominion Government undertook the work of stamping out contagious diseases. A few amendments were made to the Ordinance to render it more workable, and during the year an altogether new Public Health Act was drafted suited to the requirements of the Province.

The following is the report of the Public Health Officer:

REPORT ON PUBLIC HEALTH BY THE PUBLIC HEALTH OFFICER,
A. E. CLENDENAN, M.D.

During the year only three outbreaks of smallpox have occurred. The first was during January and February in two families living in the neighbourhood of Red Willow, northeast of Stettler. There were some eight cases. The families were related. No deaths occurred. An American from Montana brought the disease to the first family affected. The local practising physician vaccinated all who were exposed. One of the houses was a sod-walled building that could not be disinfected so that the family were given a tent. The shanty was burned and the owner recompensed in cash.

Again in June three cases occurred in Vermilion. They were confined in a smallpox hospital. One hotel had to be quarantined for two weeks owing to the cases having occurred in it. From this source a family twenty miles north of Vermilion contracted the disease and six of them ran typical courses, the father of the family dying before the cases were reported to the Government. A guard was put on and no new cases occurred.

The third outbreak of the disease was two cases amongst five men who came into southern Alberta about Christmas. These cases were wrongly diagnosed as chicken-pox, and many people were ex-

posed to it by the men going from town to town and house to house soliciting the enlarging and framing of pictures. The result is a considerable number of cases to be reported for the year 1907.

Scarlet Fever has necessitated the closing of but one school and that was at Otokwin on the C. & E. railway line. Several families were affected but no general epidemic got abroad.

Diphtheria has occurred very frequently and mostly in isolated instances. Its failure to spread more is no doubt due to a better knowledge of the disease, an earlier diagnosis, and the very general use of antidiphtheritic serum, which when used early in the disease is a sure cure and when used in smaller doses is a preventative. The conquest of diphtheria depends on an early microscopic diagnosis being made. This is not possible with a laboratory so far removed as Regina and unnecessary deaths occur just because of the distance. Returns of swabs taken from a suspected throat should be made within twenty-four hours. The only way this can be done is to place a microscope in the hands of a capable physician in, say, Lethbridge, a second in Calgary, another in Red Deer, and for the fourth place, the Government Analyst and Bacteriologist in the public laboratory in Edmonton is best adapted. A fee, recognized by the Government as fair, may be paid by the patients and the arrangement would cost but little. Diphtheria, however, has been epidemic for months over a wide section of country in the Galician settlements lying to the east of Fort Saskatchewan. Numbers of deaths have occurred but the provisions of the Ordinance respecting Public Health do not enable us to cope with the difficulties.

Typhoid fever has overrun the Province during the past summer and early winter. Scarcely a town has not been visited. The seeds of the disease are widely planted and nothing but radical measures will lessen its ravages. So long as typhoid prevails to such an extent as it has for the last two years in Winnipeg and other cities of the east we are certain to have occasional outcrops of it, for it is now known that the germs may be carried not only for weeks but months by recovered typhoid cases. Moreover the free interchange of groceries, meats, vegetables, fruits and other foods and many kinds of drinks (all of which at present are unsuspected and unanalyzed), and their free exposure everywhere to dust and flies makes Alberta a suitable spot for this disease which is much too common. During the latter part of last winter and the first part of this a goodly number of cases occurred from the unrestricted dumping of sewage into fresh water streams to which people resort for water during the cold season. To the end that there may be fewer cases of typhoid fever an alteration in the Municipal Act is worthy of consideration. In pursuance of this, I propose the following by-law for the adoption of a scavenger system:

Count the number of closets in town or the number which you will likely have within some given period.

Order a bucket made for each one made of galvanized iron or zinc about 16 inches deep and about 16 inches in diameter at the top, tapering slightly to the bottom.

Besides the number required for the closets, order say one dozen to have one extra wagon load so that when the full one is taken out

an empty one can be put in its place at once, thus obviating the necessity of two for each closet.

Have a carpenter install all the boxes at once, at the same time filling every pit that exists in the town.

Employ a scavenger by the month.

Under the existing system a municipal council appoints a Medical Health Officer who has various duties to perform, one of them being to compel householders to keep their entire premises in sanitary condition. If after a warning no action is taken, the Health Officer may have them fined. Few people appreciate the value of cleanliness, so much so that the great majority of the citizens merit the fine. But the Health Officer receives only a paltry pittance for his services, he depends upon the goodwill of these people for his living, he is an intimate friend of some and has an acquaintance with nearly all; moreover, the scavenger recognized by the local council usually charges from three to eight dollars for each service rendered, making the entire requirement impractical, unbusinesslike, harsh and in every instance a failure. Under the proposed system the Health Officer only has one man, the scavenger, to look after, and every householder will be willing to report negligence on the part of the scavenger when that individual is being paid out of the general municipal revenue. Thus it will be made easier to be clean than dirty, and only then can we hope for good results.

With few exceptions every aggregation of people from Cardston to Athabasca Landing have been visited during the year. Most of the time several missions were performed during one trip. Many minor complaints have been investigated, such as cases of typhoid among the work hands in a couple of dairies outside of the municipalities; against unsanitary slaughter houses; unsuitably located garbage grounds; condition of wells on request of liquor license inspectors; dispute as to the disposition of garbage arising between the Blood Indian Reserve and the town of Cardston; complaint by the Canadian Pacific Railway Co. regarding the pollution of their water supply at Nanton and others too numerous to mention in a report.

Many cases are not covered by the Ordinance, but summary decisions were given for what they are worth and no instances of recourse to litigation to settle the disputes arising between parties have occurred.

The most prevalent and fatal disease and the one requiring the greatest expenditure of money is tuberculosis. Though this disease has been known for many years to be contagious and consequently preventable, an educational campaign still seems necessary to instill into the public mind the feeling that arises when small-pox is sounded.

This year there has been approximately forty die of the former and one of the latter. Licensed public houses have to accept the first, and unwary travellers occupy infected rooms without fear, while the quarantining of hotels that have been exposed to the second disease is everywhere received with favor.

In order to spread abroad information about this dread disease a series of meetings was held throughout the Province. In this work the writer was assisted by the Rev. Dr. Wm. Moore, Ottawa, Secretary of the Canadian Association for Prevention of Tuberculosis, who gave

excellent addresses on the work being done to stamp out a disease which has been very aptly called the "white plague." Stereopticon views of sanitariums and methods of taking sun cures were given. Protective measures were outlined and many of these were also illustrated upon the screen. If these meetings do nothing more than impress upon the younger generation the insidiousness of this disease, and to give them some idea how to protect themselves against infection when associating with any one affected with the disease, a good work will have been accomplished. The following is a list of the places where meetings were held:

Macleod.	September 24th.	Red Deer	October 2nd.
Lethbridge	" 26th.	Strathcona	" 4th.
Medicine Hat . . .	" 28th.	Edmonton	" 6th.
Calgary	" 30th.		

In addition to this series of meetings five thousand pamphlets were distributed and something over one hundred cards posted. People have written for more pamphlets and there is a very general request to have "something done" without delay.

It was deemed advisable to prepare a draft of a new Public Health Act to meet the requirements of the times with a view to having a better organization and wider scope than was necessary before granting of autonomy to Alberta. Even a new Act with all the powers of those of the older provinces will not cover the subject of public health as it might be done. A Dominion board is the only institution to meet the additional requirements.

1. There should be a Dominion Consulting Sanitary Engineer. Such services are required at the present moment regarding the water supply of our towns and for the sewage systems of Medicine Hat, Calgary, Red Deer, Strathcona and Edmonton. Happily we possess the upper ends of the streams that traverse the prairies to the east.

2. Tuberculosis is a national contagious disease that in some of its aspects can only be satisfactorily coped with by Dominion influence.

3. As regards immigration, the provinces, especially the two new ones, should be in touch with the other provinces and with the Dominion Government. We are supposed to look after our own public health. The greatest source of danger to us are our immigrants. If I have any information about inspection along our southern boundary or at any ports of entry into Canada, it is purely unofficial. This is of paramount importance to Alberta.

The above are but simple reasons of the occasion for a Dominion Board of Health. While I was attending the annual convention of the Canadian Association for the Prevention of Tuberculosis in Ottawa last year, the executive officers of the different provinces met with F. Montizambert, M.D., Director General of Public Health for the Dominion, and it was decided to request the organization of a Dominion Board of Health. Alberta stands to gain more from it than the other provinces and it is advisable to make a formal request for it. The

uniformity in health laws, greater influence of a Dominion Board, a national laboratory for the official preparation of vaccine and antitoxin and any money grants of the Federal Government are worth deliberation.

In connection with every department of public health work there is one essential and that is a laboratory. Without a convenient laboratory even casual and rudimentary work is inefficient and uncertain. It would be platitudinous to enumerate the reasons since so many are apparent to people whether in or outside the medical profession.

XIII.—HOSPITALS, INCURABLES AND CHARITIES.

The various hospitals in the Province have continued to do good work, all were crowded to their utmost capacity most of the time, so much so that one of the most crying needs is greatly increased accommodation. Thus a number of the hospitals are either building or arranging to build. In addition to this three new hospitals have been added to the list of those receiving aid from the funds of the Government. During the year 86,622 days' treatment were given to 4,507 patients. Last year 68,024 days' treatment were given to 3,353 patients, showing an increase of over 34 per cent. in the number of patients treated and an increase of over 27 per cent. in the number of days' treatment. The following is the report of Dr. A. E. Clendenan who inspected the hospitals during the year:

REPORT ON HOSPITALS BY A. E. CLENDENAN, M.D.

Two inspections of the hospitals in the Province have been made during the year. The following hospitals are open to receive patients:

Macleod General, Macleod.
Medicine Hat General, Medicine Hat.
Pincher Creek Memorial, Pincher Creek.
Red Deer Memorial, Red Deer.
Edmonton Public, Edmonton.
Galt General, Lethbridge.
Holy Cross, Calgary.
Calgary General, Calgary.
Edmonton General, Edmonton.
Roland M. Boswell, Vegreville.
Misericordia, Edmonton.

The hospital situation calls for general remarks rather than comments on single establishments. In view of the fact that these institutions are an outgrowth of philanthropy and individual effort and have been supported by their own business managements, private donations and a government grant of twenty-five cents per day per patient, the results may be classed as good. The same amount of money, however, may in future produce a better result in the case of new hospitals in this way: Let the directors or building committee submit their plans to the Provincial Architect for examination, or better still, let them state the amount of money they can expend on building a hospital and have the Government Architect make plans best in keeping with that amount. The advisability of this is evidenced in the fact that hospital architecture is a specialty in that profession, just as bacteriology and constitutional law are to the medical and legal professions. This system is recommended for the same reasons that the Dominion Government furnishes plans of penitentiaries, postoffices, etc., instead of leaving these specialties in architecture to the chances of local knowledge. The suitability of

location of new hospitals and water and sewage accommodation should be passed upon by the Provincial Board of Health. The above suggestions can be readily introduced at the present time when the Government is anticipating an increase in the Provincial grant to hospitals. I find amongst the twelve hospitals in operation some have been made from plans drawn not by architects but by contractors. Buildings of this character, no matter how good the medical and nursing staffs may be, are never likely to carry that guarantee of good treatment that the word "hospital" should mean to the public. Nowadays science and experience have clearly demonstrated the advantage of abundance of sunlight and fresh air. In most of our hospitals the window space is less than one-fifth or one-sixth of the floor space and the accommodation in balconies less than it should be. In nearly every instance the wards are overcrowded and instead of there being ten and twelve hundred cubic feet of air space for each patient it runs down in some cases to five hundred. This cannot be considered good treatment, especially where there is no provision for forced ventilation to meet the everchanging numbers of patients in the wards. The overcrowding is due more to the importunities of the doctors to have their patients admitted than to any other cause, it being hard for lady superintendents to give absolute refusals in apparently urgent cases. It is unfortunate that most of the operating rooms have not been made larger and capable of a greater concentration of heat to them so that patients at the critical time of an operation can be assured of better air and more suitable temperature. Perhaps it would be well to make the amount of the grant contingent on the accommodation as well as making a distinction in the amounts to be paid for pay and non-pay patients. Patients everywhere seemed pleased with the treatment they got and the citizens of the towns and villages in which the hospitals are located are only too well satisfied.

The nursing staffs are to be complimented on the way their work is done. The floors and bedding and everything are kept as trained nurses ought to do it. Apparently no effort is spared to make the patients comfortable. Each staff seems to be rivalling the others in efficiency in the work. The attention of the staffs of some of the larger hospitals has been called to the fact that it is not wise to do ordinary surgical dressings in their operating room. It saves the nurses washing and disinfecting before every major operation, with perhaps a doubt remaining about everything being antiseptic.

All medical practitioners have the privilege of equal rights in attending the patients which they send to the hospitals and wish to continue visiting.

Sworn returns in duplicate have been made by every hospital as is required by the Department of Agriculture before giving them their semi-annual grant. In checking over the returns from the hospital books I have found but few small errors which were afterwards corrected.

The hospitals so far as I have learned admit all cases applying in their turn, with the exception of those having consumption and other contagious and infectious diseases.

During the past year three new hospitals have been added to the list, viz.: the Misericordia of Edmonton, the Canmore Hospital, built and managed by the "Park Local No. 1387" of the United Mine Workers of America, and the Roland M. Boswell Hospital at Vegreville, which has been financed by the Presbyterian Home Mission Committee and the Woman's Home Mission Society. The Holy Cross Hospital in Calgary is making approximately a fifty thousand dollar addition to the building. The Macleod General have renovated and materially improved their premises. Pincher Creek Memorial Hospital is planned to be about doubled in size. The Edmonton Public Hospital management has under way the construction of a new seventy-five thousand dollar building. The isolation department of the Calgary General Hospital should be duplicated since it is but half of a much needed building as it stands. The upper floor of the Red Deer Memorial Hospital has been finished.

Below will be found the usual statement showing the receipts, the total number of days' treatment, the cost per patient, etc., in connection with the hospitals. They are worthy of careful study as they reveal some interesting facts as to the amount of charity work being done at each. It is because of this charity work that the Government are justified in giving a grant of 25 cents per day for each patient treated in the hospitals.

HOSPITAL STATISTICS, 1906.

NAME OF HOSPITAL	LOCATION	EXPENDITURE						REVENUE						LIABILITIES							
		Cost of Maintenance	Expended on Buildings	Expended on furnishings	Interest on loans & mortgages	Repayment of loans and mortgages	TOTAL	Proceeds of loans and mortgages	On hand Jan. 1, 1906	CONTRIBUTIONS			Outside nursing	TOTAL	Open accounts	Interest bearing notes in bank	Mortgages on real estate	Rate of interest	Total indebtedness Dec. 31, '06	Increase over 1905	Decrease over 1905
										Local including Govt. grants	From other sources	Pay patients									
1 Calgary General....	Calgary.....	\$*16,851.81	\$ 1,098.32	\$ 283.14	\$ 798.45	\$ 3,600.00	\$22,631.72	\$ 2,000.00	\$ 605.54	\$6,133.93	\$ 59.45	\$ 14,349.96	\$118.25	\$23,267.13	\$.....	\$2,680.12	\$10,212.88	7	\$12,893.00	\$ 527.80	\$
2 Edmonton General..	Edmonton.....	8,088.75	937.63	1,037.89	720.00	.....	10,784.27	.....	1,608.52	3,403.90	.....	7,872.98	....	12,885.40	.....	19,218.00	.....	...	19,218.00	38.00	.....
3 Edmonton Public....	"	7,757.63	7,516.25	549.91	238.80	7,050.00	23,112.59	11,800.00	201.78	4,158.47	.....	7,045.74	....	23,205.99	.....	779.20	9,000.00	...	9,779.20	5,147.90	.....
4 Misericordia.....	"	4,919.74	19,564.12	3,728.48	2,755.20	2,000.00	32,967.54	17,130.91	2,755.45	3,313.80	4,404.11	7,292.10	....	34,896.37	.....	6,000.00	50,000.00	...	56,000.00	18,750.00	.....
5 Galt.....	Lethbridge.....	13,484.26	6,423.37	831.34	.....	.....	20,738.97	.....	6,554.53	3,156.00	3,657.19	9,743.86	....	23,112.22	.....	.....	.....	...	.....	.....	.....
6 Holy Cross.....	Calgary.....	21,660.95	11,871.44	426.80	.....	.....	33,959.19	10,000.00	185.51	6,873.45	219.25	11,080.15	....	28,358.36	.....	.....	.....	...	15,600.83	15,600.83	.....
7 Macleod General....	Macleod.....	3,453.27	283.00	.....	14.85	4,100.00	7,851.19	4,351.45	.....	402.75	279.90	2,638.45	....	7,672.55	70.00	.....	.....	8	3,321.10	.....	6,880.89
8 Medicine Hat Gen...	Medicine Hat.....	11,543.06	2,791.85	745.70	575.80	14,196.37	29,852.18	13,000.00	14.69	5,966.15	1,752.00	9,301.20	3.00	30,037.04	.....	1,863.77	7,000.00	6	8,863.77	.....	1,352.91
9 Pincher Creek Mem.	Pincher Creek.....	2,012.49	498.40	87.08	.....	119.60	2,717.57	.....	.....	1,526.05	.....	1,107.60	....	2,633.65	83.92	.....	.....	...	83.92	.....	35.68
10 Red Deer Memorial.	Red Deer.....	†4,158.61	414.40	.....	256.20	6,000.00	10,829.21	996.40	350.32	7,298.05	493.69	2,294.20	....	11,432.61	.....	769.14	.....	...	769.14	.....	3,350.85
11 Roland M. Boswell..	Vegreville.....	518.70	6,350.00	1,500.00	.....	.....	8,368.70	.....	.....	600.00	7,250.00	45.00	....	7,895.00	473.00	.....	.....	...	473.70	473.70	.....

*This includes \$56 for Medals and \$109.27 advance to Isolation Hospital.

†This includes \$1,120.09 Sundry Creditors, 1905 Accounts.

INCURABLES.

The arrangement with the Medicine Hat Hospital made by the North-West Territorial Government to take care of the indigent incurables of the Province has been continued. During the year seven incurables were cared for. One or two cases were not moved to Medicine Hat, it being deemed more expedient not to do so. There are now at the end of the year, only five cases being cared for. Their clinical history and financial circumstances have been inquired into and each one has been found to be worthy of assistance. A very strict limitation has been exercised towards those making application for admission as incurables. With more accommodation available in the hospital or on the erection of a poorhouse, some incurables could be admitted who would be partially supported by their friends.

In view of the demands made upon the funds of the Department for cases of relief and the support of incurables, it would be well to take up the question of erecting a poorhouse at an early date.

CHARITY AND RELIEF.

Besides continuing relief to those already in receipt of the same, a few new cases were reported to the Department and cared for. In all, during the year relief was afforded in whole or in part to some ten families. The Department is exercising the greatest care with regard to this work so as not to give assistance other than where it is absolutely necessary, and then only for as short a time as is possible.

During the year six paupers were buried at the public expense.

XIV.—VITAL STATISTICS.

The Statistician has devoted considerable time during the year to reindexing and arranging the vital statistics records so that they will be easy of access when search has to be made. Considerable time has been spent upon this work, but it is hoped that when it is completed the records will be in excellent shape. One thing has been brought to light in a very forcible manner, and that is, that the Department is not receiving the full number of records of births, marriages and deaths. The present system of having the Province divided into districts is largely accountable for this, and accordingly a simpler plan of obtaining the records will be suggested for legislation.

Below will be found the usual tables in connection with vital statistics:

ANNUAL REPORT.

VITAL STATISTICS, 1906.

	BIRTHS			MARRI- AGES	DEATHS		
	Male	Fem'le	Total		Male	Fem'le	Total
Banff	45	42	87	19	20	16	36
Calgary	395	292	687	346	238	159	397
Cardston	40	54	94	22	7	4	11
Edmonton	134	145	279	139	86	59	145
High River	78	77	155	45	33	17	50
Innisfail	70	69	139	42	22	27	49
Lacombe	146	142	288	121	65	44	109
Lethbridge	159	127	286	69	41	31	72
Macleod	101	85	186	96	47	31	78
Medicine Hat	114	83	197	47	56	22	78
St. Albert	75	90	165	27	27	15	42
Strathcona	189	177	366	98	60	35	95
Wetaskiwin	224	208	432	120	62	60	122
Victoria	204	212	416	62	52	27	79
Total	1,974	1,803	3,777	1,253	816	547	1,363

BIRTHS BY MONTHS.

MONTH.	Male	Fem'le	Total	MONTH	Male	Fem'le	Total
January	167	175	342	July	157	140	297
February	132	119	246	August	202	164	366
March	180	160	340	September	151	194	345
April	148	140	288	October	208	149	357
May	140	138	278	November	177	158	335
June	132	141	273	December	176	129	305

MARRIAGES BY MONTH.

MONTH	NO.	MONTH	NO.
January....	55	July	108
February..	90	August	107
March.....	100	September.....	123
April.....	94	October.....	104
May.....	93	November.....	122
June.....	112	December.....	145

BIRTHS AND RATIO OF BIRTHS TO DEATHS

YEAR	Births of Males to 1,000 births of females	Ratio of Births to deaths
1901..	1,081	3.55
1902..	1,010	2.59
1903..	1,056	2.95
1904..	1,118	3.04
1905..	1,059	3.11
1906..	1,094	2.07

Deaths of Infants (under one year)—

To 1,000 births..1906.....	90.00
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To 1,000 deaths from all causes, 1906.....	315.48
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MARRIAGES—Religious Denominations of Contracting Parties.

Officiating Clergymen	BRIDEGROOMS	BRIDES															
	DENOMINATIONS	Presbyterian	Methodists	Anglicans	Roman Catholics	Lutherans	Greek Catholics	Baptists	Mennonites	Latter Day Saints	Moravians	Evangelical Ref'md	Congregationalists	Greek Independent	Others	Not Stated	Totals
372	Presbyterian.....	111	45	32	8	13	0	23	0	2	0	0	5	0	6	1	246
262	Methodist.....	49	96	32	6	13	0	21	1	0	1	7	0	11	1	239	
198	Anglican.....	39	40	75	11	5	0	15	0	0	0	1	0	8	2	196	
118	Roman Catholic....	9	5	8	99	6	0	2	0	1	0	0	1	0	5	1	137
72	Lutheran.....	3	8	3	9	76	0	7	0	0	3	4	0	0	2	1	116
11	Greek Catholic.....	0	0	0	5	1	13	0	0	0	0	0	0	0	0	0	19
135	Baptist.....	16	19	10	4	8	0	39	1	0	0	0	0	0	2	1	100
4	Mennonites.....	0	2	0	0	0	0	1	4	0	0	0	0	0	0	0	7
24	Latter Day Saints..	..	1	1	..	1	..	..	..	35	..	..	..	..	..	..	38
8	Moravians.....	..	..	..	..	1	..	..	..	..	4	..	..	..	..	..	5
5	Evangelical Ref'md	1	1	..	..	2	..	3	..	..	..	3	..	..	..	..	10
5	Congregationalists.	3	5	3	..	1	..	2	..	..	..	..	3	..	..	..	17
30	Greek Independent.	..	..	..	..	..	..	..	..	..	..	..	30	..	..	..	30
9	Others.....	9	7	4	8	2	1	4	2	1	..	..	..	26	..	..	64
	Not stated.....	..	6	2	3	1	..	..	..	1	..	..	..	16	..	..	29
1253	Totals.....	240	235	170	153	130	14	117	8	41	7	8	17	30	76	7	1253

MARRIAGES.—Origins of Contracting Parties.

BRIDEGROOMS		BRIDES												
		English Speaking countries				Others								
		Canada	United States	United Kingdom	Totals	German	Austrian	Scandinavian	French	Others	Totals	Half Breeds	Indians	Totals
Eng. speaki'g countries	Canada.....	309	95	40	444	3	3	5	..	5	16	..	..	460
	United States	71	161	11	243	2	4	6	..	5	17	..	..	260
	Uni'd King'm	65	26	184	275	1	..	1	..	6	8	..	..	283
	Totals.....	445	282	235	962	6	7	12	..	16	41	..	..	1003
Others	German.....	1	6	1	8	7	1	..	1	5	14	..	..	22
	Austrian.	2	2	1	5	3	80	..	..	1	84	..	..	89
	Scandinavian	1	15	3	19	..	1	25	1	1	28	..	..	47
	French	2	1	2	5	..	..	..	5	1	6	..	..	11
	Others.....	9	10	5	24	1	..	2	..	45	48	..	..	72
	Totals.....	15	34	12	61	11	82	27	7	53	180	..	..	241
	Half-breeds ..	..	..	..	..	..	..	..	..	4	..	..	..	..
	Indians. ....	..	..	..	..	..	..	..	..	5	..	..	..	9
	Totals .....	..	..	..	..	..	..	..	..	9	..	..	..	1253

Mean Marriage Age.....		Males.	Females.
	1901	28.78	22.82
	1902	27.10	22.88
	1903	28.31	22.98
	1904	28.53	23.41
	1905	28.34	23.06
	1906	28.82	22.59

XV.—OFFICE WORK AND ORGANIZATION.

As stated in the opening page, the work of the year has been one largely of organization. The office staff at the beginning of the year consisted of four clerks and the Deputy. At the close of the year the total number employed regularly by the Department had reached twenty-seven. Early in the year the Medical Health Officer was appointed, later came the taking over of the creameries previously operated by the Dominion Government. Arrangements were made at that time for the services of Mr. Marker, who had charge of the work, though his actual work under the Government did not begin until the first day of May. In the meantime he completed the winter work of the creameries begun under the Dominion Government and made arrangements for opening all creameries for the summer's work under Provincial management. Arrangements were also made with the Federal Department of Agriculture to occupy the cold storage building and creamery at Calgary. The accounting, hitherto done at Ottawa, had also to be provided for and increased space was secured for the enlarged staff under Mr. Marker's direction. The services of Mr. Archibald Mitchell, of Macleod, as Chief Inspector of Weeds was arranged for and he began work in April. In due order followed the organization of the work of the Chief Stock Inspector, the Recorder of Brands, and the Chief Game Guardian, and the appointment of suitable men to superintend the work, particulars of which is given in connection with the report of each. The work of collecting crop statistics occasioned a great deal of work, not only in securing suitable men to act as informants, but also in securing a correct list of threshers and obtaining correct returns from them once their name was known. As already mentioned, the system of recording births, marriages and deaths, has been revised and all these events, since the beginning of things so far as this Province is concerned, have been reindexed. This has occasioned a great amount of checking and rechecking of records in order to obtain a reliable foundation for the new record columns. A clerk has been placed in charge of all the statistical work to be known as the statistician.

A clerk has been placed in charge of all the work relating to Stray and Entire Animals, Pounds, Herd, and Bull districts, and the Horse Breeders Ordinance. The same clerk acts as Librarian, having charge of the work of getting together of a library. As all the reports and bulletins issued by the various experiment stations and agricultura colleges throughout the world, and collected by the Territorial Government, together with all works on agriculture, were left at Regina, it has been no small task to get together the best of these that have been issued during the last ten or fifteen years. This work has been gradually undertaken and will entail a great deal of classifying, arranging and indexing before the contents of the library are readily available for those who want it. In this connection it is a pleasure to report that all requests for publications have been

cheerfully responded to. Besides the best books available on agricultural subjects, the stud books of the leading breeds of horses have been obtained, and the herd and flock books of the leading breeds of cattle, hogs and sheep will also be secured later. In this way the Department will soon have a valuable library and one which will be of great assistance in the pursuit of its work.

In midsummer the services of Mr. A. W. Foley, of Bowmanville, were obtained to give instruction in poultry raising and fattening, as already outlined in the section of the report devoted to poultry. Later in the year it was found necessary to arrange for the services of a capable man to look after the work of the agricultural societies. Mr. H. A. Craig, B.S.A., who had proven himself a capable judge at the fairs was chosen for this work. He was appointed in November and spent the remainder of the year visiting the various agricultural societies becoming acquainted with their work and in arranging the programme of the winter's institute meetings.

Some idea of the volume of correspondence of the Department may be obtained from the fact that during the year no less than 12,923 communications were received at Edmonton, and 58,018 sent out. At the Brand Office at Medicine Hat from the first of July to the end of the year 2,660 communications were received, and 4,050 sent out. At the office of the Dairy Commissioner, Calgary, 1,922 communications were received from June 11th to the close of the year, and from May 1st to close of the year 2,999 were sent out. This makes a total of 17,505 communications received for the year by the Department, and 65,067 sent out.

CONCLUSION.

In conclusion the thanks of the Department are due to the press of the Province for the ready assistance that they have always lent to all endeavours to make known any information for the good of the public. Thanks are also due the railway companies for their willingness to assist, wherever it lay in their power, the work which the Department had in hand. You will be pleased to know, Sir, that no matter in what direction the Department sought assistance for any project it had under way, that it has always been accorded hearty support and good wishes.

I have the honour to be, Sir,

Your obedient servant,

GEO. HARCOURT,

Deputy Minister.

XVI.—APPENDICES.

APPENDIX A.

ALBERTA HORSE BREEDERS' ASSOCIATION.

Officers for 1905.

President.....	John A. Turner.
First Vice-President.....	D. H. Andrews (deceased).
Second Vice-President	Major Walker.
Secretary-Treasurer.....	C. W. Peterson.
Breed Directors:—	
Clydes.....	H. Bannister.
Shires.....	Geo. Hoadley.
Hackney.....	C. M. Rawlinson.
Thoroughbred.....	E. J. Swann.
Standardbred.....	Wm. Moodie.
Coach Breeds.....	Bryce Wright.

REPORT OF THE MANAGING DIRECTOR.

Mr. Chairman and Gentlemen,—I herewith beg to present my seventh annual report, being for the year 1905, upon the transactions of the Alberta Horse Breeders' Association.

Market and Range Conditions in 1905.

Never in the history of this Association have the general conditions of the horse business been as satisfactory as they are at present. Heavy draught horses have commanded high prices during recent years, but present values easily discount previous records. The demand now is far beyond the supply available, especially in horses weighing over 1,400 lbs.

I am pleased to be able to state that light horses have now advanced in value to such an extent that little difficulty is experienced in disposing of them. The various remount commissions that have visited the west during recent years have done much to bring about this desirable condition by absorbing our unsalable surplus.

A large demand has also developed for ponies. Several exportations have been made to England, Eastern Canada, and the United States, and the prices paid have been excellent. It would appear that a very remunerative business may easily be developed producing ponies of the right sort. We have the mares, but stallions are badly needed and would have to be imported from England or the United States.

The health of Alberta horses has been uniformly fair. Isolated outbreaks of glanders, *Maladie du coit* and mange are reported, but are quickly brought under control. Your Directors have arranged an interview with the Veterinary Director General to go more fully into the subject, as it is felt that important interests are at stake and that the good health of our herds is perhaps one of the greatest assets of the West and must be jealously guarded.

The Horse Fair.

The advisability of organizing an annual Horse Fair had been under discussion amongst the members for some years and at the annual meeting of 1904 the project assumed definite shape, it being decided to make an attempt at bringing buyer and seller together in this manner.

An effort was made in 1903 to organize an annual Territorial auction sale of horses along the lines of the Purebred Cattle Sale held annually at Calgary, which has proven so successful. After consulting the majority of the larger breeders throughout the Territories, it was found that some objection existed to putting their horses up for public sale. The opinion seemed to prevail that while selling purebred cattle by public sale might be entirely feasible owing to the fact that an inspection of the animal coupled with the reading of the pedigree in the published catalogue would generally convey all the information the average buyer would require, the case is entirely different with horses. The amount of labour that has been devoted to handling and educating a horse is an important item and can be best explained by the owner himself. Certainly an auctioneer could not within a reasonably limited time do justice to the subject as convincingly as the owner himself could. Other objections were urged against the auction sale system for horses on a large scale at the present time, which it is not necessary to go fully into at this time.

Arrangements were completed for the holding at Victoria Park, Calgary, on the 4th, 5th, and 6th of April of a three days' Horse Fair under the auspices of the Association and the Dominion and Territorial Departments of Agriculture. This event was thoroughly advertised in Eastern Canada, Manitoba and the Territories. The object of the fair was to bring buyer and seller together and all deals were made privately in the same manner as at all large live stock centres in the United States. Outside buyers are generally deterred from purchasing in the West owing to the lack of knowledge of the country and the time, trouble and expense involved in visiting individual ranchers to make up carloads. It was hoped that the Annual Horse Fair would solve this difficulty effectively.

A set of simple rules were adopted, a catalogue of entries was printed and distributed and ample accommodation was procured at Victoria Park, Calgary, and one hundred and thirty-nine (139) animals were entered. While all the animals were not sold, a fair number of sales were made. Many of the contributors reported that they had made sales of stock they had on their ranches for future delivery and in this way the fair proved a greater benefit than would at first appear.

Imperial Remount Commission.

During the month of April last Col. C. H. Bridge, C.B., C.M.G., Assistant Inspector of Remounts for the British War Office, arrived in Canada, accompanied by Major Drage, V.S. Arrangements were made to purchase a number of remounts in Alberta and after Col. Bridge had consulted the list of points where remounts had been secured by Col. Dent in 1902, the commission decided to limit its operations to the following places:

Macleod on June 6th.
High River, June 8th.
Cochrane, June 10th.
Calgary, June 13th.

Mr. J. A. Turner had previously been appointed agent for the War Office and, assisted by the Association, took entire charge of the advertising, collecting, branding and shipping of the animals purchased. The writer accompanied the Commission to all purchasing points. At Macleod the Commission purchased 40 horses, at High River 20, at Cochrane 19, and at Calgary 32, making a total of 111 head. Out of the number purchased ten were selected to be sent to England and the balance were destined for South Africa. The shipment left Calgary for Montreal on the 15th June in good condition, but unfortunately met with a very serious accident at Calmar, near Rat Portage, Ont., where a collision practically destroyed the whole shipment. Twenty-three head were finally recovered, but after inspection at Winnipeg they were found to be so badly injured that the Commission did not take delivery. While the disaster in question was most unfortunate, not only as regards the immediate result, but also owing to the effect it might easily have had on the future operations of the War Office in Western Canada, I am pleased to be able to state that arrangements have again been made to have a remount commission visit Western Canada. The President, Mr. Turner, visited the War Office at London last autumn and interviewed the Inspector General of Remounts and other staff officers, with the result that a definite promise was given that another attempt would be made to get remounts in Alberta. Word has now been received to the effect that a commission will visit the West in the month of August and it, therefore, behoves breeders of light horses to make an effort to show as many as possible to the purchasing officers.

The following is the description of the horses required. Further details will be published later on.

- (1) Riding Horses (Troopers) height 15—1 to 15—2½.
- (2) Cobs (for Mounted Infantry) height 14—2 to 15—0.
- (3) Draught Horses (for Gun and Waggon) height from 15—2 to 15—3½.

Age from 4 years (off) to 6 years.

Colour: Bays, Browns, Blacks and Chestnuts preferred, but some roans can be taken. Light, washey coloured and mealy legged horses cannot be accepted.

Sex: Geldings or Mares. Entire or unmanageable horses are not accepted.

Unhogged Manes and *Undocked Tails* are desired, especially in the case of chargers. Good horses with short manes and docks can be accepted.

Soundness: No Horse is accepted without passing a Veterinary examination, and soundness in wind, eyes and limb is insisted upon. Stale, upright, and overshooting joints, weak or curby hocks, brushing, dishing or untrue action, turned in or turned out toes, and weak feet are absolute disqualifications.

Chargers, Riding Horses and Cobs should be short-legged, short backed, good barrelled with good rein and shoulders, of the hunter stamp, with substance and quality, action true and quite clear of the joints.

Draught Horses should not be too big but fit to carry a man driving postillion, active and able to gallop, deep, short-legged, well-ribbed up, with plenty of substance and quality, action true and quite clear of the joints. Very coarse horses, and those with heavy rolling action, are not accepted.

Last season the commission did not purchase cobs and consequently refused a large number of horses that otherwise would have been available. After pointing out to the War Office the fact that this class of horses is perhaps the most numerous in the West, authority was given to purchase a number this year at prices that ought to prove attractive to our horsemen.

Remounts for Canadian Militia.

Correspondence was opened with Col. Lessard, C.B., commanding the Canadian Dragoons, Stanley Barracks, Toronto, Ont., with a view to his obtaining remounts in Alberta for his corps. Satisfactory arrangements were made and correspondence initiated with the various likely contributors to see where suitable horses could be obtained. No advertised dates were set for purchasing, as it was considered more satisfactory to visit the various ranches where horses in large numbers were to be found. The number required was 30, which the Colonel succeeded in obtaining.

A number of remounts for the mounted corps stationed at Winnipeg, Man., have recently been purchased in Alberta.

Contributors to Prize List.

The Association is indebted to the following individuals and corporations for generous donations to the 1905 Prize List:

P. Burns.....	\$50.00
Canadian Land and Ranch Co ..	25.00
Union Bank.....	25.00
Bank of Montreal.....	25.00
Bank of Commerce.....	25.00
J. A. Turner.....	25.00
Imperial Bank.....	25.00
Molsons Bank.....	25.00
Hon. P. Talbot.....	25.00
W. R. Hull.....	25.00
Calgary Brewing and Malting Co.....	25.00
J. H. Ashdown.....	10.00
J. J. Young.....	10.00
H. S. Macleod.....	10.00
A. McBride.....	10.00
Cushing Bros.....	10.00

The Annual Show.

The entries for the Annual Show in connection with the Horse Fair in April of last year, were more numerous than ever and the quality of the exhibits were distinctly above the average.

There is a matter in connection with the Show which ought to be dealt with at the annual meeting. The export of stallions from the United States into Alberta is becoming more voluminous every year and applications for entry by the exporters of such animals at our spring stallion show are frequently made.

An Association having for its object the development of the horse industry in Alberta, could scarcely take the position of placing obstacles in the way of the freest importation of stallions into the Province, as, providing such animals are of superior merit, great benefit would naturally result from this practice. It is, however, a well known fact that the show record and conformation of a stallion is by no means a safe or conclusive indication of his value as a sire. There are many notorious instances on record where noted show yard winners have proved utterly worthless at stud. Unscrupulous owners would naturally desire to dispose of such animals as far from home as possible and Canada becomes an attractive dumping ground for stallions of the class that have failed to give good service in the Western States. A glaring case of that sort occurred in the Edmonton district recently. The syndicate referred to now has on its hands a stallion that is unable to get colts and the seller holds his security and refuses to adjust the matter satisfactorily.

Successive Boards of Directors have persistently refused entry to the annual Stallion Show from applicants who are not *bona fide* residents of the Province, amenable to our laws and to the discipline of this Association, on the grounds that it is desirable the selling of stallions here should be in the hands of men against whom disappointed purchasers would have their proper remedy, who being residents would be compelled to deal fairly with the buyer if they intended to remain in business permanently. Failure on the part of sellers to carry out their agreement honestly in connection with any stallion exhibited at the Association shows and sold as a result, would also engage the attention of the Association, as has frequently been the case with the Cattle Breeders' Association, when animals sold at the Annual Sale have proven not to be as represented. Unless, however, members are residents of the Province, the Association is powerless in such matters. A resolution should be passed at this meeting expressing clearly the desire of the members on this important question for the future guidance of your Board and Manager.

HORSE SHOW, CALGARY, APRIL 4TH, 1905.

List of Prize Winners.

CLYDESDALES.

Four years and over.

1st.	Charming Prince.....	R. W. Meiklejon, Cochrane, Alta.
2nd.	King Columbine.....	J. A. Turner, Calgary.
3rd.	Reunion.....	J. A. Turner, Calgary.
4th.	The Lord Stewart.....	Robinson & Long, Calgary.
H.C.	Black Baron.....	S. Beach, Regina, Sask.
C.	Lord Roberts.....	Wm. Alexander, Swift Current.

Three years.

1st.	Barharrow.....	Hallman Bros., Airdrie, Alta.
2nd.	.....	Mr. Allcock, Medicine Hat, Alta.
3rd.	Meric.....	J. A. Turner, Calgary, Alta.

Two years.

1st.	Silver King.....	F. H. Andrews, Davisburg, Alta.
2nd.	Commissioner.....	D. Thorburn, Davisburg, Alta.
3rd.	Silver Crest.....	Jas. Clark, Crowfoot, Alta.
4th.	Dandy Lad.....	Indian Industrial School, Calgary.

Yearlings.

1st.	Baron's Heir.....	J. A. Hogg, Okotoks, Alta.
2nd.	Rob Roy.....	David Thorburn, Davisburg, Alta.

Yearling Fillies.

1st.	Baron's Lassie.....	J. A. Turner, Calgary, Alta.
2nd.	Annie Laurie.....	H. Bannister, Davisburg, Alta.

SHIRES.

Any age.

1st.	Director.....	G. E. Brown, Calgary, Alta.
2nd.	Nateby.....	G. E. Brown, Calgary, Alta.
3rd.	Gomer.....	G. E. Brown, Calgary, Alta.
4th.	.....	W. Good, Ft. Saskatchewan, Alta.

PERCHERONS AND BELGIANS.

Any age.

1st.	Colbert.....	G. E. Brown, Calgary, Alta.
2nd.	Dick.....	G. E. Brown, Calgary, Alta.
3rd.	Count.....	Geo. Hoadley, Okotoks, Alta.

CHAMPIONSHIPS.

BEST HEAVY DRAFT STALLION.

Any age or breed.

Prince Everard.....	J. A. Turner, Calgary, Alta.
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BEST CLYDE STALLION.

Any age.

Prince Everard.....	J. A. Turner, Calgary, Alta.
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THOROUGHBRED.

Any age.

1st.	Hume.....	Geo. Hoadley, Okotoks, Alta.
2nd.	Lord Glen.....	R. F. Bevan, Calgary, Alta.
3rd.	Horton.....	W. A. Jackson, Macleod, Alta.
4th.	Osman Digma.....	Jas. Jackson, Carstairs, Alta.

COACH BREEDS AND STANDARD BREEDS.

Any age.

1st.	Insulaire.....	G. E. Brown, Calgary, Alta.
2nd.	Eustace.....	G. S. Short, Calgary, Alta.

HACKNEYS.

Three years and over.

1st.	Agility	Wm. Moodie, De Winton, Alta.
2nd.	Heath Rosador	C. Kinniburg, Calgary, Alta.
3rd.	Sky Pilot	D. Clark, Crowfoot, Alta.
4th.	Black Doctor	C. M. Rawlinson, Calgary, Alta.

CHAMPIONSHIP.

BEST HACKNEY STALLION.

Any age.

Agility	Wm. Moodie, De Winton, Alta.
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GRADE YEARLINGS FOALED IN 1904.

1st.	Nellie	Hugh McPherson, Calgary, Alta.
2nd.	R. McPherson, Calgary, Alta.

SALE CLASSES.

Heavy Draught teams over 1,400 lbs.

1st.	. . . . .	D. Thorburn, Davisburg, Alta.
2nd.	. . . . .	A. W. Roland, Okotoks, Alta.

Heavy Draught Mare or Gelding, Grade.

1st.	. . . . .	D. Thorburn, Davisburg, Alta.
2nd.	. . . . .	D. Thorburn, Davisburg, Alta.
3rd.	D. Thorburn, Davisburg, Alta.

Heavy Draught Mare or Gelding, Purebred.

1st.	B. Wright, De Winton, Alta.
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DRIVING TEAMS.

1st.	Hallman Bros., Airdrie, Alta.
2nd.	R. W. Micklejon, Cochrane, Alta.

SINGLE DRIVER, MARE OR GELDING.

1st.	. . . . .	Dr. Hobbs, Calgary, Alta.
2nd.	. . . . .	Scott Bros., Calgary, Alta.

SADDLERS.

1st.	. . . . .	R. F. Bevan, Calgary, Alta.
2nd.	. . . . .	W. L. Christoe, High River, Alta.
3rd.	. . . . .	B. Howard, Cochrane, Alta.
4th.	. . . . .	A. J. McDonald, Calgary, Alta.

Obituary.

It is my painful duty to have to announce the death of one of our Vice-Presidents, Mr. D. H. Andrews, of Crane Lake, whose demise took place in May of last year. Mr. Andrews was one of the founders and most enthusiastic supporters of the Association and had occupied the position of Vice-President for almost seven years. Those who

have been more intimately connected with the management of the Association, and who had become accustomed to depend on the disinterested judgment and sound sense of the late Mr. Andrews, realize keenly the irreparable loss the Association has sustained.

Stallion Premiums.

I have in previous reports commented on the evil effects of the "Stallion Syndicate" proposition, as developed in Western Canada. The syndicate plan has been tried and has been found to have many disadvantages. No single individual has sufficient amount of money invested in the horse to see that he is properly looked after. When a change is desired there is always trouble in disposing of the animal at a satisfactory price. But the greatest objection to the system is that very inferior animals have been forced on the members at large prices, animals which could have been purchased at a very low figure indeed, if the transaction had been conducted on a cash basis. This has hurt in a great measure the horse breeding interests of the country. Some very good animals have undoubtedly been sold in this way, yet in many cases they have been a disappointment.

Your directors, having fully considered these facts, took steps by resolution, to urge the local government to assist in bringing to the attention of breeders in Alberta the advantages of the "hiring system" and "stallion premiums." In the first place, this plan would be the means of the gathering together of all horsemen periodically to transact business and discuss horse raising, which in itself would lend interest to the industry. Good mares would naturally follow into a district where the services of a thoroughly good stallion could be easily and cheaply procured, as this system would act as a guarantee that a community was not going to be imposed upon by having an inferior stallion forced on the district. It would naturally encourage breeding along one line and discourage the mixing up of different breeds indiscriminately as is too often practised and which is so injurious to successful horse raising.

I am pleased to be able to report that the Department of Agriculture for Alberta took the matter up promptly and arranged with Mr. Bryce Wright to address a series of public meetings throughout the Province on the subject, which resulted in the immediate formation of one or two "Stallion Societies." This encouraging result of a little effort speaks volumes for the possibilities in the way of introducing a more rational system of procuring stallions of high merit for use of the smaller breeders in the Province.

*The Tariff Commission and the Verification of Pedigrees
of Imported Horses.*

It has been apparent for a number of years that a large number of stallions with faked pedigrees have been imported from the United States. Representations have from time to time been made to the Dominion Government, but so far without success. Prior to the arrival of the Tariff Commission to the West, your Directors met and passed the following resolutions:

"That the attention of the Tariff Commission be directed to the fact that settlers are bringing in mares free under the customs regulations which works a hardship on the horse industry of Canada.

"That the attention of the Tariff Commission be called to the advisability of applying the same regulations on purebred animals coming into Canada from the United States as the latter country applies to Canada.

"That the Tariff Commission be requested to provide that all purebred animals brought into Canada should be first registered in the Canadian National Record and that copies of all certificate forms be kept on file at every custom office."

The undersigned was delegated to lay these matters before the Commission, which was done at Calgary sitting. The Chairman admitted the fairness of our contention and promised due consideration.

I attach herewith the financial statement for the year 1905, which shows a deficit of \$70.32. Representations have been made to Hon. Mr. Finlay, Minister of Agriculture, for an increased grant in the future, which met with his favourable consideration. Under the circumstances it is expected that the Association will close the present year with a small surplus or at least with a reduced deficit.

Respectfully submitted,

CHAS. W. PETERSON,
Managing Director.

Financial Statement of the Horse Breeders' Association for the year ending Dec. 31st, 1905.

RECEIPTS.	
Balance on hand.....	\$ 116.06
Membership fees.....	108 00
Donations.....	208.00
Entry fees.....	232.00
Hay fees.....	63.00
Sale commissions.....	22 00
Government grant.....	200 00
Branding fee.....	34 45
Sundries.....	.30
Overdraft.....	70.32
	<hr/> \$1,054.13
EXPENDITURE.	
Prizes.....	\$ 358 57
Postage, Stationery and Office expenses.....	150 85
Printing and advertising.....	253.91
Ground expense.....	19.05
Hay and straw.....	70.75
Salary of Secretary.....	100.00
Expense re purchase of remounts.....	93.80
Sundries.....	7.20
	<hr/> \$1,054.13
Amount due for 1905 plate for prizes.....	\$154.00
Amount due (approximate) for medals.....	12.00
	<hr/> \$166.00

CALGARY, May 3rd, 1906.

Audited and found correct.

(Signed), FRANCIS R. EXHAM, Auditor.

APPENDIX B.

ALBERTA HORSE BREEDERS' ASSOCIATION.

REPORT OF THE SECRETARY.

Mr. Chairman and Gentlemen,—I beg to present the Eighth Annual Report of the transactions of the Alberta Horse Breeders' Association, being for the year 1906.

Market and Range Conditions in 1906.

The very satisfactory conditions of the Horse Breeders' business during the year 1905 has been continued, and in fact, improved during the year 1906. The demand for heavy and light horses is far beyond the supply available. Probably at no time in the history of Alberta, has the horse breeder experienced less difficulty in disposing of his horses at very remunerative prices than at the present time.

Imperial Remount Commission.

During the month of July, Col. C. H. Bridge, C.B., C.M.G., Assistant Inspector of Remounts for the British War Office, arrived in Canada, accompanied by Capt. Martin, V.S. Arrangements were made to purchase a number of remounts in Alberta, and after Col. Bridge had consulted the lists of points where he had previously secured horses, and other likely points, he decided to purchase at the following points on the dates mentioned: Cochrane, Aug. 6th; Calgary, Aug. 7th; Okotoks, Aug. 8th; Macleod, Aug. 9th; Pincher Creek, Aug. 10th; High River, Aug. 11th; Claresholm, Aug. 12th; Medicine Hat, Aug. 17th; Maple Creek, Aug. 18th. Mr. John A. Turner had previously been appointed agent for the War Office, and in conjunction with the Association, took entire charge of the advertising, collecting, branding and shipping the horses purchased. The writer accompanied the Commission at all purchasing points, and through the kindness of the General Superintendent, R. R. Jamieson, of the Canadian Pacific Railway Company, his private car was placed at the disposal of the Commission, and was very thoroughly appreciated, and made it much easier for the Association to make their stay in Alberta a pleasant one. An expression of appreciation from the Association is due Mr. Jamieson for his kindness in this connection. The following is the description of the horses required, and prices paid:

(1) Riding Horses (Troopers) height from 15—1 to 15—2½, Price \$115.00.

(2) Cobs (for Mounted Infantry) height from 14—2 to 15—0, Price \$100.00.

Age: From 4 years (off) to 6 years.

Approved late four year olds will be taken at \$5 per head less than the above prices.

Colour: Bays, Browns, Blacks and Chestnuts preferred, but some roans can be taken. Light, washey coloured and mealy legged horses cannot be accepted.

Sex: Geldings and Mares. Entire and unmanageable horses are not accepted.

Unhogged Manes and Undocked Tails are desired, especially in the case of chargers. Good horses with short manes and docks can be accepted.

Soundness: No Horse is accepted without passing a Veterinary examination, and soundness in wind, eyes and limb is insisted upon. Stale, upright and overshooting joints, weak or curby hocks, brushing, dishing or untrue action, turned in or turned out toes, and weak feet are absolute disqualifications.

Chargers: Riding Horses and Cobs should be short legged, short backed, good barrelled with good rein and shoulders, of the hunter stamp, with substance and quality, action true and quite clear of joints.

Halters: All horses purchased must be supplied with strong halters at sellers' expense.

Horses need only be halter broken, but must be quiet to examine, broken to saddle preferred.

Owing to the high price of horses in Alberta, many of the breeders expressed the opinion that very few animals would be brought forward at the prices offered. Their opinions, however, did not appear to be correct, as a very considerable number of horses were shown at each point.

The numbers purchased at each point were as follows:

Cochrane	13
Okotoks	12
Pincher Creek	20
Claresholm	8
Maple Creek	4
Calgary	14
Macleod	21
High River	10
Medicine Hat	14

The largest number of animals were at Pincher Creek and Macleod. A very noticeable feature in connection with the purchase of these horses was that the most valuable horses from the owner's standpoint were, in a very large majority of cases, not the animals that were selected. The purchase of army remounts from year to year will, no doubt, have the effect of making the farmers and ranchers familiar with the type required. Those showing horses in 1906 had a pretty good idea of what was required. The commendable action of the Department of Agriculture in including a horse suitable for army remount purposes among the stock used at the various judging schools throughout the Province, and the lectures delivered on army remounts, will, no doubt, have a very beneficial effect. Your president, Mr. John A. Turner, was instructed to interview the War Office authorities while in England in the fall of 1906, with a view to having a commission visit Canada during 1907, for the purpose of securing another shipment. At the time of Mr. Turner's visit, it was rather too soon to ascertain how the horses turned out which were purchased in 1906, but a report will be made to the Association in this connection in due time. The entire shipment of 116 head was shipped to South Africa, and all but two animals arrived safely and in good condition. For the benefit of the members of the Association present at this meeting, Mr. Turner, who has

been with the remount officers while purchasing horses the past three seasons, will give a short address respecting the type of horses required for army use.

Contributors to the Prize List.

The Association is indebted to the following who kindly contributed toward the prize list of the show of 1906:

P. Burns & Co.	\$ 50 00
N. D. Jackson, Alberta Hotel.	50 00
Union Bank.	25 00
Imperial Bank of Canada.	25 00
Bank of Montreal.	25 00
Merchants Bank.	25 00
Canadian Bank of Commerce.	25 00
Molsons Bank.	25 00
Traders Bank of Canada	25 00
W. R. Hull	25 00
Calgary Brewing & Malting Co	25 00
Yale Hotel.	25 00
Palace Hotel.	25 00
J. Doyle, Queen's Hotel.	15 00
Grand Central Hotel.	10 00
Adams & Peer, Victoria Hotel.	10 00
Royal Hotel.	10 00

The Annual Horse Show.

The entries for the Annual Horse Show of 1906 were numerous and the quality of the exhibits very much above the average. The following extract from last year's report is applicable again this year:

"Successive Boards of Directors have persistently refused entry to the annual stallion show from applicants who are not *bona fide* residents of the Province, amenable to our laws and to the discipline of this association, on the grounds that it is desirable the selling of stallions here should be in the hands of men against whom disappointed purchasers would have their proper remedy, who, being residents, would be compelled to deal fairly with the buyer if they intended to remain in business permanently. Failure on the part of sellers to carry out their agreement honestly in connection with any stallion exhibited at the Association shows and sold as a result, would also engage the attention of the Association, as has frequently been the case with the Cattle Breeders' Association, when animals sold at the Annual Sale have proven not to be as represented. Unless, however, members are residents of the Province, the Association is powerless in such matters."

A resolution passed at the last annual meeting that no person be permitted to enter stallions for the show unless he has been a *bona fide* resident of the Province of Alberta for at least 6 months, and owned property in the Province, was certainly a step in the right direction, and has been of great assistance to the undersigned, in confining the show to horses owned by legitimate horse breeders of Alberta. Your Directors, in order to make the rule more effective, added a clause, so that the wording is now as follows: "All animals must be owned by a member of the Alberta Horse Breeders' Associa-

tion, who is a *bona fide* breeder, and has been a resident of the Province of Alberta for at least six months and owns property in Alberta." After the experience of taking one year's entries with this clause in force, it would seem that no hardship has been imposed on any one desiring to make entries who should be able to compete in a show organized by Alberta breeders. In nearly every case an applicant who could not qualify under this condition understood the reasons for the clause. If it was his intention to stay in the province and qualify for the next annual show, he was glad that this rule was in force. If his intentions were to merely unload some horses of some unsuspecting Alberta farmers and ranchers, and then leave the country, the rule did not appeal to him, which is as it should be, and the more he objected to the rule the more evident it was that such conditions should be imposed.

The Financial Statement.

The financial statement, which will be presented to you, shows a deficit of \$435.67. The annual Government grant of \$200 has been entirely inadequate to make it possible to keep the Association out of debt. Application has been made to the Provincial Government to have this grant increased to \$400 per year. I have the assurance of the Government that our request will be met. The Dominion Government grant which has in the past, under an arrangement with the Dominion and Territorial Departments of Agriculture, been used in part payment of an assistant secretary, will now be divided between the Cattle Breeders' Association, Horse Breeders' Association, and Fat Stock Show, and any charge for additional assistance will be made direct on the Association. This grant was originally made in aid of the annual auction sale of cattle, and as one-third of the \$650 will now be credited to the Horse Breeders' Association, it is hoped that with the additional grant from the Alberta Government, the Association will be able to wipe off the deficit within two or three years.

Resignation of Mr. Peterson.

During the year, Mr. Peterson, your former secretary, found it necessary to resign in order to take on other duties. Mr. Peterson was largely responsible for the organization of the Association seven years ago, and through his efforts the Association has accomplished a very great deal of good. It was therefore with a great deal of regret that your Directors accepted his resignation, and in order to still retain Mr. Peterson's interest and support, and as a slight acknowledgement of appreciation of his services, appointed him an honorary director and life member of the Association. The undersigned who has acted as assistant secretary since the organization of the Association, was appointed his successor. I sincerely trust that my efforts in looking after the interests of the Horse Breeders' Association, will warrant the same share of support as has been shown in the past. While a secretary is largely responsible for the

success of any organization, it is only with the hearty co-operation of every member that he is able to accomplish the greatest amount of good.

Respectfully submitted,
E. L. RICHARDSON,
Secretary.

HORSE BREEDERS' ASSOCIATION.

OFFICERS FOR THE YEAR 1906.

President.....	J. A. Turner, Calgary.
1st Vice-President.....	Bryce Wright, DeWinton.
2nd Vice-President.....	Mr. Jenkinson, Medicine Hat.
Secretary-Treasurer and Managing Director.....	E. L. Richardson, Calgary.

Breed Directors.

Clydesdales.....	E. C. Hallman, Airdrie.
Shires.....	A. E. Eckford, High River.
Percherons.....	Geo. Lane, High River.
Hackneys.....	H. M. Rawlinson, Calgary.
Thoroughbreds.....	P. G. Connell, Okotoks.
Coach Breds.....	G. E. Goddard, Cochrane.
Standardbreds.....	F. W. Ings, High River.
Ponies.....	Col. Walker, Calgary.

General Directors.

M. S. Wilson, Pincher Creek.	D. Thorburn, Davisburg.
Dr. Harrington, Lacombe.	D. Cargill, Medicine Hat.
D. R. Stewart, Edmonton.	

List of Members for 1906.

D. P. Woodruff.....	Caldwell.
Jno. Clarke, Jr.....	Gleichen.
G. E. Goddard.....	Cochrane.
H. Bannister.....	Davisburg.
H. L. Briggs.....	Jacksonville.
C. Kinniburg.....	Calgary.
Thos. Laycock.....	Calgary.
J. A. Roberts.....	Airdrie.
Geo. S. Willis.....	Springbank.
A. P. Bremner.....	De Winton.
E. R. Lewis.....	Dog Pound.
Noble Morrison.....	Wetaskiwin.
M. S. Wilson.....	Livingston.
Chas. Shattuck.....	Davisburg.
H. P. McLeod.....	Okotoks.
J. R. Thompson.....	Calgary.
A. H. Eckford.....	High River.
H. Ford.....	Priddis.
W. J. Tregillus.....	Calgary.
David Cargill.....	Seven Persons.
H. Riviere.....	Pincher Creek.
Geo. Shortt.....	Calgary.
D. H. McDougall.....	Morley.
A. Dalgleish.....	Cochrane.
Geo. Wesacott.....	Calgary.
J. D. Freeman.....	Calgary.
A. J. McDonald.....	Calgary.

Wm. Livingstone.....	Okotoks.
Hy. Rowles.....	Okotoks.
D. F. Johnson.....	Macleod.
J. E. Hansen.....	Caldwell.
Clarence Hughsten.....	Leavings.
Ed. Whipple.....	Macleod.
L. E. Bourne.....	Macleod.
D. C. Hobbs.....	Leavings.
J. Graham.....	Macleod.
Jos. McNabb.....	Macleod.
N. Carriere.....	Macleod.
A. Kennington.....	Livingston.
C. S. Teuch.....	Pincher Creek.
S. H. Spelman.....	Pincher Creek.
Jno. Gladstone.....	Pincher Creek.
A. C. Hunter.....	Meadow Creek.
Jas. Pettapiece.....	Medicine Hat.
A. P. Day.....	Medicine Hat.
W. A. Douglas.....	Maple Creek.
R. S. Smith.....	Cardston.
W. C. Jamieson.....	Calgary.
Thos. Thompson.....	Gladys.
J. McGary.....	Medicine Hat.
M. J. Carr.....	Calgary.
B. Wright.....	De Winton.
W. A. Jackson.....	Macleod.
W. M. Parslow.....	Calgary.
Jos. Robinson.....	Calgary.
W. Moodie.....	De Winton.
J. R. Hinshaw.....	High River.
Campbell and Rawlinson.....	Olds.
H. McPherson.....	Calgary.
Thos. McMillan.....	Lineham.
P. G. Connell.....	Okotoks.
J. W. Fraser.....	Bassano.
J. McAndrews.....	Davisburg.
Wm. Cook.....	Cochrane.
Thos. Andrews.....	Davisburg.
D. Thorburn.....	Davisburg.
Mrs. J. Huggard.....	Calgary.
Geo. Hoadley.....	Okotoks.
B. S. Lloyd.....	Calgary.
A. McIntosh.....	De Winton.
Jos. McPherson.....	Calgary.
James Jones.....	Calgary.
M. D. Shutt.....	Calgary.
Innisfail Agricultural Society.....	Innisfail.
W. J. Latimer.....	Calgary.
W. H. Edgo.....	Cochrane.
O. E. Brown.....	Calgary.
H. M. Shaw.....	Nanton.
J. Hallman & Sons.....	Airdrie.
Col. Walker.....	Calgary.
H. H. Jenkins.....	Pincher Creek.
R. W. Meiklejon.....	Cochrane.
W. Bradley.....	Cochrane.
A. H. Murphey.....	Cochrane.
Dr. A. Hobbs.....	Calgary.
R. E. Blakemore.....	Calgary.
Jos. Fisher.....	Millarville.
Robt. Turner.....	Millarville.
J. K. Rowles.....	Okotoks.
Frank Tathan.....	Macleod.
W. J. Glass.....	Macleod.
E. J. Herring.....	Macleod.
A. Dixon.....	Macleod.
H. McNaught.....	Leavings.
B. McNeal.....	Macleod.
J. R. McLean.....	Macleod.
J. A. Struthers.....	Macleod.
O. E. Baillie.....	Livingston.
Dr. D. Warnock.....	Pincher Creek.

Jno. Brown	Pincher Creek.
S. J. Chaput	Fishburn.
J. M. Thorne	High River.
C. F. A. Leeds	New Oxley.
J. T. Bell & Son	Medicine Hat.
B. A. Jahn	Battle Creek.
B. W. Jacobs	Maple Creek.
Robt. Irwin	Cardston.
H. Ulrich	Calgary.
P. Lachance	Macleod.
P. W. King	Calgary.
E. Bell	Lochend.
J. A. Turner	Calgary.
A. McIntosh	De Winton.
Thos. Cope	Cochrane.
L. A. Scott	
F. W. Ings	Nanton.
A. C. Shaberley	Pekisko.
D. McKerracher	Medicine Hat.

APPENDIX C.

ALBERTA CATTLE BREEDERS' ASSOCIATION.

Officers for 1905.

Hon. President.....	Hon. Sen. P. Talbot, Lacombe.
President.....	J. A. Turner, Calgary.
1st Vice-President.....	Hon. Wm. Beresford.
2nd Vice-President.....	Jas. Sharp, Lacombe.

Breed Directors.

Shorthorns.....	O. E. Brown, Calgary.
Herefords.....	O. Palmer, Lacombe.
Aberdeen Angus.....	J. Morton, Lacombe.
Galloways.....	E. D. Adams, Calgary.
General Director....	R. K. Bennett, Midnapore.

REPORT OF THE MANAGING DIRECTOR.

Mr. Chairman and Gentlemen,—I herewith beg to submit my Sixth Annual Report, being for the year 1905, upon the transactions of the Alberta Cattle Breeders' Association.

Autonomy having been granted the North-West Territories on the basis of two provincial establishments, the members of the Association at the last annual meetings decided to limit the scope of the associations to the Province of Alberta. This action was also taken in order to give official recognition to the Live Stock Associations which had some time previously been organized in the Province of Saskatchewan. Under the circumstances the name was changed from "Territorial" to "Alberta." While the step taken considerably limits the area covered by the now defunct "Territorial" Association, it is reasonable to suppose that much more efficient administrations can in the future be devoted to the work of live stock improvement in both Provinces, each now having its own complete organization.

The Annual Auction Sale.

The policy of developing a central public auction sale for pure bred cattle of all breeds initiated in the year 1901, was adhered to this season. The sale held at Calgary last year enjoyed the distinction of being the largest individual purebred cattle sale in the world.

The 1905 Auction Sale of Cattle was perhaps more satisfactory from the buyers' standpoint than from that of the seller. The average price realized was \$69.26 as against \$99.79 the previous year. The drop in prices may be accounted for in part by the ab-

normal increase in the number of entries. In 1904 some 295 head were offered, while in 1905 no less than 500 animals were listed. Another cause which had a direct bearing on the low values at the 1905 sale was the continued depressed price of beef. It was rather a surprise that the prices at the 1904 sale reached such a satisfactory average, but it may be stated that while the price of beef was low at that time, it was confidently expected to advance in a short time and the depression due to the low price of beef was not, therefore, a considerable factor in fixing purebred cattle values. The result of the last sale showed clearly that too many animals were offered and was, therefore, wisely decided by your directors to limit the number of entries for the 1906 sale.

In view of the reorganization of the Association owing to the political changes above referred to and to the fact that the undersigned has occupied the post as Managing Director since the organization in 1899, I may be pardoned for a few observations upon the development of the Annual Sale since the inception of the Association. The attached statement shows the results of the various sales held by the Association. It will be seen that the Association has during the past five years sold over one hundred and five thousand dollars worth of stock for its members. During that time 1,185 animals have been sold at an average price of \$88.79, which is a most satisfactory record. A report upon the work accomplished by the Association would not, however, be complete without taking into consideration the very marked improvement which has taken place in the quality of the cattle stocks of the Territories, largely as a result of the educational work done by the Association and the facilities for the exchange of purebred sires inaugurated by it.

STATEMENT OF ASSOCIATION AUCTION SALE.

Year	Total Number sold	Average price	Total receipts	SHORTHORNS						HEREFORDS						GALLOWAYS						ABERDEEN ANGUS						AYRSHIRES					
				Bulls			Cows			Bulls			Cows			Bulls			Cows			Bulls			Cows			Bulls			Cows		
				No.	Ave.	No.	Ave.	No.	Ave.	No.	Ave.	No.	Ave.	No.	Ave.	No.	Ave.	No.	Ave.	No.	Ave.	No.	Ave.	No.	Ave.	No.	Ave.	No.	Ave.	No.	Ave.	No.	Ave.
				44	\$90.57	19	\$73.73	...	...	...	...	...	...	...	...	1	\$45.00	...	...	...	...	1	\$45.00	...	...	...	...	...	...	...	...	...	...
1901	64	\$85.17	\$ 5,451.00	183	99.91	8	76.25	14	\$91.42	...	...	...	...	...	...	2	72.50	10	\$68.50	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1902	220	95.80	21,077.00	173	93.65	65	96.63	19	\$135.00	...	...	...	...	...	...	9	83.33	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1903	268	96.60	25,890.00	131	104.23	49	65.22	76	127.17	14	\$91.42	...	...	...	...	5	107.00	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1904	293	99.79	29,245.00	173	67.84	55	63.45	95	76.21	8	65.00	...	...	...	...	4	62.50	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1905	340	69.28	23,557.00																														

HIGHEST PRICES REALIZED.

1901—\$250. Shorthorn Bull sold by P. Talbot & Son, Lacombe.
1902—\$290. " " " John Ramsay, Priddis.
1903—\$255. Hereford Bull " " O. Palmer, Lacombe.
1904—\$285. Shorthorn Bull " " Hon. W. Bereafoord, Calgary.
1905—\$225. " " " D. Sinclair, Innisfail.

STATEMENT SHOWING ORIGIN AND DESTINATION OF ANIMALS SOLD AT SALES.

YEAR	Southern Alberta		Western Alberta		Eastern Alberta		Edmonton District		Calgary District		Leduc to Blackfalds		Red Deer to Airdrie		Saskatchewan		Total
	Col.	Del.	Col.	Del.	Col.	Del.	Col.	Del.	Col.	Del.	Col.	Del.	Col.	Del.	Col.	Del.	
1901.....	32	33	..	6	..	5	..	..	16	14	21	3	2	3	25	..	64
1902.....	32	61	5	20	..	29	4	4	26	55	54	27	12	22	87	2	220
1903.....	61	57	4	40	..	28	3	3	82	55	47	34	16	40	53	11	268
1904.....	29	101	2	41	..	41	2	10	122	51	61	17	22	30	55	2	293
1905.....	48	89	1	19	3	26	30	22	70	31	76	32	16	85	96	36	340
	170	341	12	126	5	129	39	39	316	206	259	113	68	180	316	51	1,185

Total collected North of Red Deer..... 298
" delivered " " 152
" collected South " " 887
" delivered " " 1,033

Steps have been taken by your directors having in view a thorough revision of the rules and conditions of sale. The total number of entries have been limited and a maximum imposed in the number of entries to be accepted from any individual member. It is felt that in the matter of maintaining fair values of purebred cattle, the interests of seller and buyer are absolutely identical, inasmuch as reasonably fair prices one year with another, are absolutely essential to maintaining a high degree of quality in our purebred herds, upon which depend largely the quality of our commercial cattle stocks, and, therefore, to a considerable extent the general prosperity of the West. The tendency on the part of breeders of purebred cattle in Alberta at present is distinctly towards over-production, and the undue expansion of the herds. The high prices realized at the first four sales proved too tempting and breeders prepared to go into the business in a wholesale way. Much comfort is, however, to be derived from the knowledge that a good demand still exists for top cattle. This is conclusively proven by the fact that even at the 1905 sale, the purchasing public was always prepared to pay a fancy price for outstanding individuals.

While a considerable improvement is noticeable both in the average quality and the fitting of the stock offered, much yet remains to be done. At every sale a number of animals entered have been of such low quality as to do positive injury to the sale. How to eliminate those undesirables is a problem which yet remains to be solved. In a country of magnificent distances such as Alberta, inspection before shipment to the sale is not financially practicable. Once, however, the animals reach the point of sale, it would be a manifest injustice to rule them out. Probably the nearest approach to overcoming the difficulty would be to grade all animals by quality into two classes and offer the inferior stock towards the close of the sale.

1905 Roll of Honour.

Following is a list of prize winning animals with the names and addresses of the owners.

Prize Winners at the Fifth Annual Spring Show of Purebred Cattle, held May 15th, 1905.

CLASS 1.—SHORTHORN BULLS.

Three years and over.

1st.	Alberta Prince, 40190.....	David Sinclair, Innisfail.
2nd.	Monarch of Grandview, 41406.	H. J. Scott, Innisfail.
3rd.	Duke of Idlwyld, 41033.....	Hy. Talbot, Lacombe.
4th.	Royal McGregor, 29026.....	P. Talbot & Son, Lacombe.
5th.	Alberta's Hope, 46405.....	C. W. Peterson, Calgary.

Two years.

1st.	Craftsman, 46317.....	J. & W. Sharp, Lacombe.
2nd.	Dundonald, 35486.....	J. & W. Sharp, Lacombe.
3rd.	Lord Montrose.....	J. L. Walters, Lacombe.
4th.	Commodore, 46518.....	A. S. Blackwood, De Winton.
5th.	Trout Creek Marquis, 51363	J. Ramsay, Priddis.

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BEST HEREFORD BULL, ANY AGE, BRED IN N.W.T.

Bonny Brae Hesiod 16th, 177699.....O. Palmer, Lacombe.

HEREFORD COW, ANY AGE.

1st. Plane of Red Deer, 1943.....Moosom Boyd Co., Prince Albert.
 2nd. Witch Hazel, 1952.....Moosom Boyd Co., Prince Albert.
 3rd. Ruth, 99937.....J. Ross, Medicine Hat.
 4th. Constancy, 1434.....J. Ross, Medicine Hat.

ABERDEEN ANGUS BULLS, ANY AGE.

1st. Poplar Bluffs Prince.....J. Morton, Lacombe.
 2nd. King of the West, 603.....J. Capron, Blackfalds.
 3rd. Red Deer Sampson, 73039.....J. Morton, Lacombe.
 4th. Red Deer Ranger, 73038.....J. Morton, Lacombe.

GALLOWAY BULLS, ANY AGE.

1st. Major of Hope, 23305.....T. McMillan, Lineham.
 2nd. Challenge of Hope, 23304.....T. McMillan, Lineham.
 3rd. Prairie Jan, 25918.....T. McMillan, Lineham.
 4th. Prairie Mage, 25923.....T. McMillan, Lineham.

List of Contributors of Cattle to the 1905 Sale.

HEREFORDS.

Boyd Moosom Co., Prince Albert, Sask.
 Elliott, Thos., Regina.
 Huntley, P. F., Lacombe.
 Moncke, W. V., De Winton.
 Palmer, Oswald, Lacombe.
 Ross, John, Medicine Hat.
 Shouldice, Jas., Kamaka.
 Sinton, Robt., Regina.
 Tough, Jas., Edmonton.
 McIntosh, A., De Winton.

ABERDEEN ANGUS.

Capron, J., Blackfalds.
 Morton, John, Lacombe.

GALLOWAYS.

McMillan, Thos., Lacombe.
 Perry, H. N., Cardston.

SHORTHORNS.

Andrews, J. McK., Davisburg.
 Andrews, W. J. Grierson.
 Bennett, R. K., Calgary.
 Beresford, Hon. Wm., Calgary.
 Bergsteinsson, Alameda.
 Blackwood, A. S., DeWinton.
 Bolton, A. H., Gladys.
 Bolton, J. & E., Okotoks.
 Boyd, Jas., Lacombe.
 Bratt, Jesse, Milestone.
 Bredt, Paul M., Regina.
 Brown, Mrs. A. C., Innisfail.
 Canadian Land & Ranch Co., Crane Lake.
 Caswell, Jos., Saskatoon.
 Caswell, J. J., Saskatoon.
 Caswell, J. D., Rosthern.

Cherry, Isaac, Saskatoon.
 Cope, Thos., Calgary.
 Daly, Wm., Clover Bar.
 Davidson, J. F., Maple Creek.
 Douglass, J. J., Lacombe.
 Duncan, Geo., Innisfail.
 Duncan, Cash. E., Glen Ewen.
 Edgar, Thos. D., Stratheona.
 English, S. R., Warwick.
 Findlater, S. W., Lacombe.
 Flewwelling, H., Lacombe.
 Fowler, A. S., High River.
 Fraser, Hugh, DeWinton.
 Gorrell, Frank M., Oxbow.
 Gorse, J. H., Lacombe.
 Hammer, W. H., Olds.
 Hyssop, Chas., Lethbridge
 Industrial School, Davisburg.
 Jones Bros., Milestone.
 Langrish, Wm., Oxbow.
 Laidman Bros., Lacombe.
 Lush, David, Saskatoon.
 Littlejohn, High River.
 McClure, W. J., Innisfail.
 Macfarlane, John, Haynes.
 McGill, W. J., Lacombe
 McPherson, Hugh, Calgary.
 Paisley, S. W., Lacombe.
 Peterson, Chas. W., Calgary.
 Pratt, Robt., DeWinton.
 Ramsay, John, Priddis.
 Reid Bros., Cochrane.
 Richardson, George, Nutana.
 Robinson, John, Innisfail.
 Scarlett, James, Innisfail.
 Scott, H. J., Innisfail.
 Scott, Press, Springbank.
 Sinclair, David, Innisfail.
 Sharp, J. & W., Lacombe.
 Shepperd, David, Alameda.
 Shields, R. J., Okotoks.
 Snider, Albert B., Okotoks.
 Stewart, Jas. E., Okotoks.
 Sutor, J. & W., Gladys.
 Talbot, Henry, Lacombe.
 Talbot, Thos., Lacombe.
 Talbot & Son, P., Lacombe.
 Tate, P. J., Canyon.
 Thomson, John V., Gladys.
 Turner, John, Calgary.
 Vreeland Bros., Innisfail.
 Waines, Ed., Springbank.
 Walters, J. L., Lacombe.
 Watson, F. B., Lacombe.
 Watson, Mrs. Wm., Dalesboro.
 Watson, Hugh C., Oxbow.
 Watson, A. J., Oxbow.
 Wills, Richard H., Innisfail.
 Wilson, Jas., Innisfail.
 Watson, A., Airdrie.
 Young, John J., Alameda.
 Cheyne, Jas., Manor, Assa.
 Walker, Major, Calgary.
 Curtis, J. H., Springbank.

Commercial Cattle.

While the general trend of cattle values in Alberta has been upwards, prices are yet far from those prevailing in 1902 and 1903. Fair prices are offered for the best export stuff, but the aged and

rough cattle are decidedly at a discount, in many cases unsaleable. How to dispose profitably of the latter grades is becoming a serious problem. Grain finishing rough stock will scarcely be popular in view of the narrow margin between grain fed cattle and grass finished beef.

I am pleased to be able to state that the Provincial Legislature of Alberta interested itself in the depressed condition of the beef market during its first session. The committee on agriculture commenced an investigation into the causes of this unsatisfactory state of affairs, and as an initial step invited the undersigned to appear before the committee for the purpose of giving evidence on the subject. I proceeded to Edmonton accordingly, accompanied by your President, Mr. J. A. Turner.

The evidence submitted was not in the nature of specific charges against local buyers or exporters, but rather along the line of an impartial exposition of the state of the market and the difficulties the industry is at present labouring under. A case was made for further searching inquiry rather than for the immediate application of drastic remedies, and this view apparently commended itself to the committee when it resolved to urge upon the government the appointment of a special commissioner to enquire into and report upon the matter.

The main features of the evidence submitted were, first, that owing to the rapid settlement of the country stockmen and farmers are being more and more confined to their own holdings, involving a much larger capital expenditure for lands and buildings than hitherto, also the regular winter feedings of cattle in all seasons.

Secondly, that the increased cost of production, so far from being counteracted by the compensating advantage of a correspondingly increased market value of beef, has actually been accompanied by a gradual decline in beef prices during recent years.

Thirdly, that the beef market appears to differ materially from all other lines of business inasmuch as no proper relation exists between the market value of beef on the hoof and the retail value of beef on the hoof and the retail value of the carcass. The former fluctuates while the latter remains stationary.

Fourthly, that, rightly or wrongly, the conviction prevails amongst stockmen and farmers that the market value of their products is dictated by concerns acting in unison and that, consequently, cattle prices will, as long as this state of affairs exists, always be so adjusted that the margin between cost of production and final market value will be just sufficient to prevent a general decline in cattle raising and no more, which will have the effect of reducing profits to the vanishing point and rendering the industry stationary.

Fifth, as rapid expansion of the cattle industry, involving better facilities for economically utilizing by-products is one of the essentials to improving present depressed prices, any tendency that keeps the cattle output stationary, cannot help but be an effectual bar to better prices.

Sixth, the wholesale spaying of heifers and disposal for slaughter of breeding cows, demonstrates conclusively that the stockman is rapidly losing confidence in the situation; in fact, that the market

and the producers are at war, which cannot help but be regarded as a most serious condition.

Seventh, that it is undoubtedly the duty of the government to ascertain whether this attitude on the part of producers is justified or not, and if it is to work out and apply the proper remedy, if such can be indicated and feasibly carried out.

These, in brief, are the main features of the evidence laid before the Committee on Agriculture. The facts submitted are indisputable and the conclusions are moderate. The subject is highly technical, but it can surely be ascertained whether or not a grievance exists and, if so, whether a practical remedy is available.

That the evidence above referred to commended itself to the committee is apparent from the following resolution, which was unanimously passed:

"Resolved, That in the opinion of this committee it would be wise to appoint a stock commissioner to find ways and means whereby the farmer would get the best prices for his cattle."

The Minister of Agriculture, Hon. Mr. Finlay, who occupied the chair, in commenting on the resolution, stated that he would take the matter up with his colleagues and endeavor to meet the wishes of the committee and have the matter investigated. It might be well if the annual meeting of this Association placed itself on record in this matter, which is one of paramount importance to every breeder of cattle, purebred or grade, in the West.

Membership.

The membership of the Association is in a very satisfactory condition, having increased from 43 in 1900 to 130 during the present year.

The financial statement for the past year is herewith attached.

Respectfully submitted,

(Signed) CHAS. W. PETERSON,

Secretary.

Cattle Breeders' Annual Statement for 1905.

RECEIPTS.

Balance on hand.....	\$ 590.49
Government Grant.....	500.00
Membership fees.....	132.00
Donation.....	145.00
Entry fees.....	571.00
Freight fees.....	1,261.00
Proceeds of sale.....	23,527.00
Sale commission.....	489.74
Sundries.....	15.90
Gate receipts.....	69.25
	<hr/>
	\$27,301.38

EXPENSES.

Grounds expense, collecting and delivering...	\$ 297.08	
Freight.....	1,267.35	
Prizes.....	214.21	
Postage, stationery and office expense.....	275.60	
Printing and advertising, and extra clerical assistance.....	371.79	
Proceeds of sale.....	23,557.00	
Hay and straw.....	368.95	
Salaries.....	300.00	
Refunds of entry fees.....	52.00	
Auctioneers.....	190.00	
Sundries.....	25.30	
Cr. Balance.....	472.10	
		<hr/>
		\$27,301.38

NOTE.—There is a refund of \$30.00 due on sale No. 367, which will make the balance on hand \$502.10.

CALGARY, May 3rd, 1906.

Audited and found correct.

(Signed) FRANCIS R. EXHAM, *Auditor*.

APPENDIX D.

ALBERTA CATTLE BREEDERS' ASSOCIATION.

REPORT OF THE SECRETARY.

Mr. Chairman and Gentlemen,—I beg to submit herewith the Seventh Annual Report of the transactions of the Alberta Cattle Breeders' Association being for the year ending December 31st, 1906.

The most important feature of the work of the Alberta Cattle Breeders' Association is the holding of an annual show and sale. The development of the pure bred cattle business of Alberta, and the marked improvement in the range cattle, are in a very large measure, the result of the work of this organization. When the Association was organized in 1900, the number of breeders of pure bred stock in Alberta could be numbered on one's fingers. The great difficulty that these breeders had to contend with in their endeavour to make the breeding of pure bred stock profitable, was that of marketing. There were very few pure bred sires used on the ranges, and it was hard to impress upon the rancher the fact that a pure bred sire would effect a very great improvement when used on the range in the place of the ordinary range bull. In most cases, the highest praise that could be given the sires used by the farmers and ranchers throughout the western provinces, was that they were males. The annual auction sale not only solved the difficulty of disposing of the stock of the pure bred breeder, but made it as easy as possible for the residents of the western provinces to secure pure bred stock.

I attach a statement herewith which shows the number of animals sold at each sale, the average price, as well as the averages obtained and numbers sold of each breed. The statement also shows the seller of the highest priced animal at each sale. A study of the statement shows a very satisfactory advance in prices, as well as in numbers sold. The increase in prices realized at the sales held in 1901, 1902, 1903, 1904, carried with it an unfortunate feature,—the average at the first sale was \$85.17; at the next \$95.80; in 1903 \$96.60 was the average, and in 1904 the average reached \$99.79. The rapid increase shown in the averages realized at each sale, gave many of the breeders an inspiration to go into the business on a larger scale, and many of them developed their pure bred business to such an extent that they could not take care of their animals properly. Many animals were raised under range conditions, and practically every male animal was offered for sale as a bull. The necessary lesson had to follow, and was taught in no unmistakable language at the 1905 sale. Over 500 animals were entered for this sale, many of them would be a disgrace in a pure bred herd, and as a result, the average price dropped from \$99.79 in 1904 to \$69.28

in 1905, and at the last sale when about the right number of animals were entered to supply the demand, the average reached was \$108.37, the number sold being 170 head. It is not the object of this sale that this average should continue to increase. While individual sires will be worth many hundreds of dollars, the Association will not be doing the greatest amount of good if the average price per animal soars very much above or below the \$100 mark. If the price should go too high, it is too difficult for the average farmer and rancher to obtain a change of blood, and if the price should drop too low, the breeder gets too little encouragement and profit on his business.

The honour of securing the highest price for an individual animal at the various sales, has been very well distributed. No breeder has won this honour more than once during the past six sales.

The winners were as follows, in the order named: P. Talbot & Son, Jno. Ramsay, O. Palmer, Hon. W. Beresford, D. Sinclair, A. F. McGill, and the highest price realized was \$365 for the animal sold by Mr. McGill.

An important change has been made in connection with the sale which is now in progress, and that is, the rule allowing females to be entered has been withdrawn. The directors felt that the expense connected with the fitting of females for sale at the time of the spring Association events was so great, and the prices realized for females ranged so low, that it would be in the interests of the breeders to confine the sale to male stock only, and if considered advisable advertise a sale of females at some other time of the year. Possibly it would be advisable to have a sale at the time of the summer fair at Calgary, or later on in the fall when the animals would be in good condition off grass. This is a matter to be decided by the members at this meeting.

The following is a list of the contributors to the 1906 sale:

SHORTHORNS.

Andrews, Jas. McK., Davisburg.
 Bennett, R. K., Calgary.
 Bolton, A. H., Gladys.
 Bourne, Hugh, Shepard.
 Boyle, R. L., Crossfield.
 Bruford & Headley, Okotoks.
 Campbell, Jno., Bowden.
 Clarke, Jno., Jr., Gleichen.
 Copley Bros., Calgary.
 Duncan, Jno., Innisfail.
 Elliott Bros., Airdrie.
 Findlater, S. W., Lacombe.
 Flewelling, H. F., Lacombe.
 Headley, Geo., Okotoks.
 Latimer, A. W., Bowden.
 Makepeace & Son, Lacombe.
 Martin, David, Gladys.
 McPherson, Hugh, Calgary.
 Metcalf, H. W., Lacombe.
 McGill, A. F., Lacombe.
 Moore, Charles, Bowden.
 Morton, Jno., Lacombe.
 Naessens, A., Davisburg.
 Olsen, A. P., Red Deer.
 Peterson, C. W., Calgary.
 Postill, Wm., Red Deer.

Ramsay, Jno., Priddis.
 Robinson, Jno., Innisfail.
 Saunders, A., Lacombe.
 Sharp, J. & W., Lacombe.
 Swanson, Wm., Lacombe.
 Talbot, Henry, Lacombe.
 Talbot, P. & Son, Lacombe.
 Talbot, Thos., Lacombe.
 Turner, Jas., Calgary.
 Turner, Jno. A., Calgary.
 Trayner, Capt., Cochrane.
 Waines, Ed., Springbank.
 Walters, J. L., Lacombe.
 Wilson, James, Innisfail.
 Wright, Bryce, DeWinton.

ABERDEEN ANGUS.

Fay, J. H., Blackfalds.
 Hutchinson, Lew., Duhamel.
 Johnson, R. E., Lacombe.
 Morton, Jno., Lacombe.

GALLOWAYS.

MacMillan, Thos., Lineham.

HEREFORDS.

Ellis, Mrs. Caroline, Innisfail.
 Fletcher, Arthur, Mound.
 Huntley, P. F., Lacombe.
 Mace, S. M., Pekisko.
 Moss, Walter, Shepard.
 McGregor, Forester, Airdrie.
 Palmer, Oswald, Lacombe.
 Parker, Jno. T., Lacombe.
 Perry, C. W., Calgary.
 Sandeman, Eric, Calgary.
 Tough, James, Edmonton.

The Financial Statement.

The financial statement which will be presented to you to-night, shows that the finances of the association are in a very satisfactory condition. After all expenses for the year 1906 have been met, there is still a balance on hand of \$356.51. When the Associations were organized seven years ago, an arrangement was entered into by the Dominion and Territorial Department of Agriculture whereby the Dominion Government would make an annual grant of \$650 in aid of an annual sale to be held under the auspices of the Territorial Live Stock Association, said grant to be used in securing the services of an assistant, so that the work of the Association could be carried on satisfactorily. This arrangement has been in force until the present time, and it is now proposed to distribute the grant direct to the Association, according to the basis suggested by the Dominion Live Stock Commissioners' Department, and the necessary funds to provide assistance to carry on the work of the Associations will in future be a direct charge on the Associations. The balance on hand from the distribution of the grant referred to, amounting to \$66.80, has therefore been transferred to the credit of the Cattle Breeders' Association, as it was in connection with this Association in particular that the arrangement was entered into.

The Beef Commission.

In last year's report, reference to the appointment of the above commission to enquire into the beef industry was made. The four western provinces each appointed a commissioner, and it was expected that the enquiry would be practically completed by this date. Owing to some difficulty experienced in connection with the appointment of the British Columbia member of the commission, no evidence has yet been taken. It is expected, however, that the commission is practically ready to commence investigations, and is hoped that their work will be the means of developing a more remunerative system of marketing the live stock produced in the West.

We have just passed through one of the hardest winters known in Alberta in the past 15 or 20 years, and the cattle losses while not nearly so great as the newspaper reports state, have been very considerable. The cattle men who have lost heaviest were those who have been from year to year depending on a mild winter and have neglected to provide shelter for their animals. No doubt the lesson of the past winter will be the means of teaching many owners to take better care of their animals during the winter months, and see that a sufficiently large supply of hay is provided.

During the year, Mr. C. W. Peterson, your former secretary, found it necessary to resign to accept another position. Mr. Peterson, as you are aware, was instrumental in organizing the Live Stock Associations, and his energetic administration of the affairs of the Live Stock Associations have in a large measure been responsible for the success of the associations. It was with regret that your directors accepted his resignation. In recompense of Mr. Peterson's work for the Association, your directors appointed him an honorary director and life member of the Cattle Breeders' Association, and express the hope that, although his attention is now centred in other directions, the Association may still have the benefit of his influence and experience.

The undersigned, who had acted as assistant secretary ever since the Associations were organized, was appointed as Mr. Peterson's successor. It shall be a pleasure to me to carry on the work of the Associations in the best interests to the breeders, and I trust that my efforts in the capacity of secretary of the Live Stock Associations will warrant your hearty co-operation. While a secretary is very largely responsible for the success of any organization, he is seriously handicapped unless backed up in his efforts by the co-operation of every member, and in closing I sincerely trust that the members and the undersigned may work together harmoniously

Respectfully submitted,

E. L. RICHARDSON,
Secretary.

STATEMENT OF ASSOCIATION AUCTION SALE.

Year	Total number	Average price	Total receipts	SHORTHORNS				HEREFORDS				GALLOWAYS				ABERDEEN ANGUS				AYRESHIRE			
				Bulls		Cows		Bulls		Cows		Bulls		Cows		Bulls		Cows		Bulls		Cows	
				No	Ave.	No	Ave.	No	Ave.	No	Ave.	No	Ave.	No	Ave.	No	Ave.	No	Ave.	No	Ave.	No	Ave.
1901	64	\$ 85.17	\$ 5,451.00	44	\$90.57	19	\$73.73	..	.....	..	.....	..	.....	..	.....	1	\$45.00	..	.....	..	.....	..	.....
1902	220	95.80	21,077.00	183	99.91	8	76.25	14	\$91.43	..	.....	..	.....	..	.....	2	72.50	10	\$38.50	3	\$31.30	..	.....
1903	268	96.60	25,890.00	173	93.65	65	96.63	19	135.00	..	.....	..	.....	..	.....	9	83.33	..	.....	1	15.00	..	.....
1904	293	99.79	29,245.00	131	104.23	49	65.22	76	127.17	14	\$91.42	7	40.71	10	\$36.90	5	107.00	1	60.00	..	.....	..	.....
1905	340	69.28	23,557.00	173	67.84	55	63.45	93	76.21	8	65.00	5	64.00	..	.....	4	62.50	..	.....	..	.....	..	.....
1906	170	108.37	18,426.50	95	106.12	23	72.17	37	138.91	7	78.57	21	65.00	..	.....	6	139.16	..	.....	..	.....	..	.....

HIGHEST PRICE REALIZED.

1901—\$250. Shorthorn Bull sold by P. Talbot & Son, Lacombe.
1902—\$290. " " " " " John Ramsay, Priddis.
1903—\$255. Hereford Bull " " O. Palmer, Lacombe.
1904—\$285. Shorthorn Bull " " Hon. W. Beresford, Calgary.
1905—\$225. " " " " D. Sinclair, Innisfail.
1906—\$365. " " " " A. F. McGill, Lacombe.

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